

Evaluation
Strengthening capacity of the
member States to achieve the
energy-related Sustainable
Development Goals - Pathways
to Sustainable Energy

Final report

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Executive summary

Affordable, reliable and sustainable energy supply is the key to sustainable development. The ECE region plays an important role in attaining the international energy and climate objectives that were agreed in 2015¹. To fill the gap between the current policies and systems and the targets set for the future, the ECE member States needed to investigate and assess pathways for the region to attain sustainable energy, identify early-warning indicators of failure to meet the objectives, and enhance the capacity of the member States to achieve sustainable energy.

In response to this need, the “Strengthening capacity of the member States to achieve the energy-related Sustainable Development Goals – Pathways to Sustainable Energy” project (hereinafter – the “Pathways” project, or the Project) was developed and implemented. The mandate to implement this project came from the UNECE Committee on Sustainable Energy. The “Pathways” project was implemented by the UNECE Sustainable Energy Division during the period from October 2016 to October 2019. The project was funded by the Russian Federation (overall budget 330,000 USD, including 4 work months of P2). The implementing partners were the Institute for Applied Systems Analysis (Austria), Pacific North West National Laboratory (USA), and the Fraunhofer-Gesellschaft (Germany).

The evaluation assessed whether the project succeeded in enhancing the capacity of the UNECE member States to achieve sustainable energy. The purpose of the evaluation was to assess the *relevance* of the Project, as well as its *effectiveness* in enhancing the capacity of the ECE member States to attain sustainable energy and achieve the energy-related Sustainable Development Goals (SDGs). The evaluation also addressed the *efficiency* and *sustainability* of the project, in order to learn how to maintain and possibly replicate lessons-learned in the activities of the subprogrammes and Phase II of the project.

The **objective** of the project was the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region. The project’s **goal** was to strengthen the knowledge and capacities of countries to develop, implement and track national sustainable energy policies aligned with their commitments on climate change and sustainable development, and to understand the objectives and actions of other countries. In addition, it aimed to contribute concretely to climate change mitigation and sustainable development. To achieve this goal, the project set forth three **milestones**:

- (a) development of sustainable energy policy and technology options towards 2050 supported by modelling and experts’ insights;
- (b) development of a concept of early-warning system to monitor if achievement of sustainable energy objectives is on track; and
- (c) facilitation of a high-level political dialogue.

The **overall conclusion** of the evaluation is that the project was highly relevant, highly effective, and demonstrated high efficiency. The project results are moderately sustainable.

The *relevance* of the project to priorities and needs of the member States, beneficiaries/target groups, and the underlying documents of the UN (e.g., Biennial programme plan and priorities for the period 2018-2019, Proposed programme budget for the biennium 2016-2017, Proposed programme budget for the biennium 2018-2019, Transforming our world: the 2030 Agenda for Sustainable Development) was high.

¹ Resolution adopted by the General Assembly on 25 September 2015. Transforming our world: the 2030 Agenda for Sustainable Development. UN General Assembly. Seventieth session. Distr.: General 21 October 2015. A/RES/70/1

All the planned project activities have been implemented and contributed to the achievement of the Expected Accomplishments, Outputs, and Milestones. The project was *effective*.

In spite of the delayed start of the project, caused by the prolonged selection and contracting of the modelling institutions, the results were achieved in due course. Comparison of the project with three selected UNECE projects, document review, interviews, and survey results demonstrated that the project was implemented in an *efficient* way.

The project has provided solid outputs at the regional level. The interviewed and surveyed project participants expressed concern over the ability of all stakeholders and beneficiary countries to continue developing the benefits of the project at the subregional and national levels. The stakeholders and beneficiary countries could benefit from further skills development for model application and making use of modelling results. The project results can be rated as moderately *sustainable*.

Though *gender equality and human rights* dimension was neither the main topic of the project nor explicitly integrated into the project proposal, activities, and reports, both women and men were able to access its results. According to the analyzed data, the share of female participants in the project events ranged from 18% to 34%. No explicit references to human rights related facts have been found in the project documentation.

Recommendations:

1. The UNECE may wish to continue disseminating the project outputs as wide as possible using, among others, electronic means.
2. Further development to enhance the project achievements could benefit the member States: for instance, enhanced capacity-building and expertise development to build on the effectively implemented activities 2016-2019.
3. If the intervention is taken forward, it might be further focused on the subregional and national levels, as the member States are at an early stage of addressing the complex and vitally important issues of pathways to sustainable energy.
4. To include gender and human rights aspects in the design of future projects, the UNECE may consider: a) further encouraging stakeholder/beneficiary organizations to increase the participation of female experts and decision-makers from their side in project events, e.g., by including a special notice into the invitations to these events; b) further encouraging female experts to join the Project Advisory Board and especially the Expert Groups Focal Points and Chairs; c) introducing in the project design a number of measurable gender and human rights related indicators and targets to report on the progress made.
5. When preparing project concepts and ToRs, the UNECE managers should formulate indicators of achievement that can be easily measured to track the project progress and reflected in project documents.

Introduction

A. Purpose

The evaluation assessed whether the “Pathways to Sustainable Energy” project succeeded in enhancing capacity of the UNECE member States to achieve sustainable energy. The purpose of this evaluation was to assess the *relevance* of the Project, as well as its *effectiveness* in enhancing the capacity of the ECE member States to attain sustainable energy and achieve the energy-related Sustainable Development Goals (SDGs). The evaluation also addressed the *efficiency* and *sustainability* of the project, in order to learn how to maintain and possibly replicate lessons-learned in the activities of the subprogrammes and Phase II of the project. The results of the evaluation will support the improvement of services provided, as well as future projects and activities implemented by the Secretariat.

B. Scope

The evaluation covered the full period of implementation from October 2016 to October 2019. The evaluation covered seven subregions of the project including 1) North America, 2) Western Europe, 3) Eastern Europe, 4) Russian Federation, 5) Central Asia, 6) Caucasus, and 7) Belarus, Moldova and Ukraine. A particular focus was put on two subregions where subregional workshops were held: a) Workshop with a subregional focus on Central Asia, held in Bishkek, Kyrgyzstan, on 12-14 June 2018; b) Workshop with a subregional focus on Belarus, Moldova, Ukraine (BMU), held in Kiev, Ukraine, on 15 November 2018.

C. Methodology

The evaluation was conducted in August – October 2019. The evaluation was guided by the objectives, indicators of achievement, and means of verification provided in the project documents. The evaluation methodology included the following:

1. Desk study of the project materials found at the UNECE’s website (project descriptions, reports, documents, presentations, publications etc.), the information provided by the UNECE Project Manager, other information sources (the full list is attached as Annex 6).
2. Travel of the Consultant to Geneva, Switzerland, on 24-27 September 2019 to meet with the UNECE staff members and with the stakeholders during the 28th Session of the Committee on Sustainable Energy (CSE), where the project results were presented.
3. E-survey. Members of the Project Advisory Board, Expert Groups Focal Points and Chairs, national representatives, modeller team experts, governmental organizations and NGOs, participants of the above-mentioned Pathways project workshops in Bishkek and Kiev, and of the workshop in Geneva on 14-15 May 2019, were surveyed via a written questionnaire developed by the Consultant (Annex 4). The questionnaire included open-ended and closed-ended questions (with possible answers “Yes”/”No”/”Not Applicable” and rating scales from 1 – “poor” to 5 – “excellent”). The questionnaire was sent to 75 potential respondents the contacts of which were shared with the Consultant by the UNECE, and 14 of them completed and returned it (Annex 5). The survey response rate was 19%.
4. Interviews. Along with members of the Project Advisory Board, the evaluation process engaged members of six subsidiary bodies of the Committee on Sustainable Energy including 1) Group of Experts on Energy Efficiency, 2) Group of Experts on Renewable Energy, 3) Group of Experts on Gas, 4) Group of Experts on Coal Mine Methane, 5) Group of Experts on Clean Electricity Systems, 6) Expert Group on Resource Management, representatives of the donor country

(Russian Federation), and the key project stakeholders (USA and Germany). Interviews via Skype, WhatsApp, and face to face have been conducted with 30 project participants (Annex 7).

5. The information was triangulated to ensure data validity/quality: three methods were applied to gather the necessary data (document analysis, surveys, and interviews). The sources of information were selected on the basis of their availability, credibility and appropriateness, e.g., documents from the UN, official reports by other agencies, presentations made at the 28th Session of the Committee on Sustainable Energy in Geneva.

6. In line with the UNEG norms and standards, and with the UNECE Evaluation policy, the evaluation assessed how human rights and gender equality were included in the project design, execution, and results, and made recommendations on how human rights and gender could be included better in the design of the future projects by the UNECE.

D. Evaluation limitations

1. The evaluation followed the Milestones, Outputs, Expected Accomplishments, and the objectives of the project identified in the project documents. The Project Proposal contained a list of Indicators of Achievement to measure the project outputs. Later the Indicators were excluded from the project logical framework and reports, and replaced by more relevant Milestones as a measure of the project implementation success. According to the UNECE, this happened because the wording used for the Indicators² in the Project Proposal made it difficult to measure and track the progress in achieving the outputs.
2. The opportunities for surveying, interviews via Skype and WhatsApp, and face-to-face interviews in Geneva were limited by the availability of the respondents during the data collection period and by the tight schedule of their stay in Geneva during the 28th Session of the Committee on Sustainable Energy.
3. During the evaluation period, the final Pathways project reporting was still undergoing. According to the UNECE, the final Pathways project report will be made available to the public upon its completion later in 2019.

E. Key Evaluation questions

The evaluation applied the criteria of relevance, effectiveness, efficiency, and sustainability introduced by the OECD³. The evaluation provided answers to the key questions listed below to ascertain whether the project delivered the right things in the right way, and to identify key lessons in this regard.

Relevance:

- Was the project design and implementation appropriate for meeting the project's objective?
- To what extent did the activity respond to the priorities and needs of UNECE member States? How relevant was it to the target groups' needs and priorities?
- What is the relevance of the activity for the broader work of UNECE?
- Did the project apply gender and rights-based approaches in the design,

² E.g., IA.1.2 Policy options are developed and endorsed by the ECE member States by Q4/2018; IA.2.2 At least ten ECE member States agree to consider integrating early warning indicators in their national energy policies in 2019-2020; IA.3.1 At least ten ECE member States agree to consider recommendations in their policy making 2019-2020; Source: Project Proposal to be Funded by the Russian Federation. Letter from the Permanent Mission of the Russian Federation to the UN in Geneva to PMU Director UNECE. 9 September 2016

³ Available at <https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

implementation and results of the activities?

- Did UNECE advocated for gender equality in this area of work?

Effectiveness:

- To what extent the objective of the activity was achieved?
- To what extent are the outputs consistent with and relevant to the overall objective and expected accomplishments?
- How did the project activity strengthen the national capacity of member States to develop, implement and track national sustainable energy policies aligned with international agreements?
- To what extent the expected accomplishments of the activity were achieved?
- What were the challenges/obstacles (if any) to achieving the expected results?
- What (if anything) has prevented to achieve the desired results?

Efficiency:

- Were the resources sufficient for achieving the results?
- Were the results achieved on time and were all activities organized efficiently?
- To what extent were the resources used economically?
- How could the use of resources be improved? Would you propose any alternatives to achieve the same results? If yes, which ones?
- Was the activity implemented in the most efficient way compared to alternatives? In particular, how do the costs and use of resources compare with other similar projects (within UNECE, other regional commissions, other UN agencies, or other organizations and initiatives)?
- How was the difference between planned and actual expenditure justified (if any)?

Sustainability:

- To what extent will the benefits of the activity continue after its completion, without overburdening recipient countries and stakeholders?
- How is the stakeholders' engagement likely to continue, be scaled up, replicated or institutionalized?
- To what extent do the partners and beneficiaries 'own' the outcomes of the work?
- How has the activity built in resilience to future risks?
- What were the major factors which influence the achievement or non-achievement of sustainability of the activity?
- To what extent are the objectives of the activity still valid? How can the activity be replicated in the UNECE region? Or in other regions?
- Did both women and men equally access the project benefits as intended?

Findings

Relevance

The project was mandated by the Committee on Sustainable Energy to deepen the multi-angled conversation on the consequences of the energy transition which is currently in progress. According to the findings of the desk research, interviews, and surveys, the project addressed key issues related to the development of strategies and actions to ensure the attainment of sustainable energy in the UNECE region, such as the gap between the targets set for the future and the strategies and systems currently in operation, and the understanding of sustainable energy policy drivers in the UNECE member States.

In total, 79% of the survey respondents and 92% of the interviewees confirmed that the project was relevant or highly relevant to the priorities and needs of the UNECE member States.

The relevance of the project to the needs and priorities of the target groups / beneficiaries was scored by the surveyed project participants as follows: 86% - relevant or highly relevant to priorities and needs of political decision-makers; 86% - relevant or highly relevant to priorities and needs of national governments; 50% - relevant or highly relevant to those of the private sector (Figure 1).

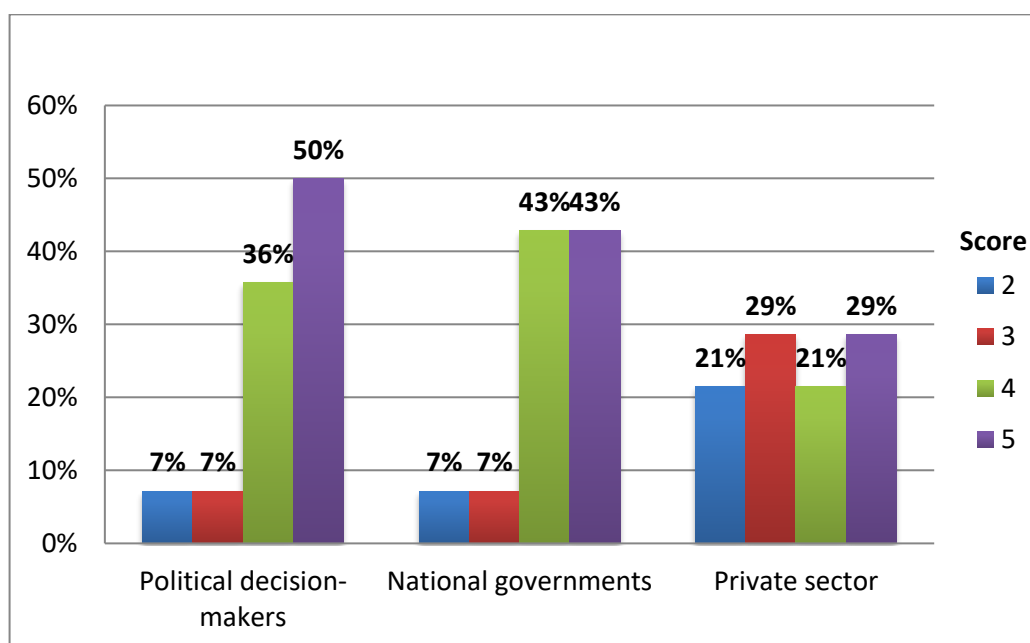


Figure 1. Survey response on the relevance of the project to the needs and priorities of the target groups / beneficiaries.

Source: Data obtained from the evaluation survey

The work done in the project was more relevant for policy makers since they were the target group, however, all stakeholders (private and public sector) were involved in the extensive consultation exercise and contributed to the process of preparing the project material. The analysis was done for 7 subregions of the ECE region, with a focus on two subregions (Central Asia and BMU) where subregional workshops were held (see the *Scope* section of the Introduction). The call for inputs was made to all 56 countries of the region and all Expert Groups (listed in the *Methodology* section of the Introduction).

Ninety-three percent of the survey respondents agreed that the project was relevant to the broader work of the UNECE. According to Ms. Lucia De Strasser, Consultant for Environmental Affairs, Environment Division, UNECE, the “Pathways” project as a tool and its results were useful for the work in their division; Ms. De Strasser recognized the relevance of the project within the UNECE.

The project corresponds to Subprogramme 5 *Sustainable Energy* of Programme 17 of the Biennial programme plan and priorities for the period 2018-2019⁴. The coordination meetings and workshops to develop and identify policy options organized as part of the project activities contribute to the sustainable energy policy dialogue and cooperation among the stakeholders (A/71/6/Rev.1, Subprogramme 5, Expected Accomplishment (a)). The Secretariat collects and publishes⁵ background information about the project and sustainable energy strategies of the member States at the project website, which promotes the awareness of the role of energy efficiency and renewable energy in achieving the sustainable future (A/71/6/Rev.1, Subprogramme 5, Expected Accomplishment (b)). Policy recommendations based on the results of modelling, scenario development, identification of policy options, and the establishment of adaptive policy pathways, were produced within the framework of the project, and the final results presentation was made at the 28th Session of the Committee of Sustainable Energy on 25 September 2019⁶. The policy pathways and recommendations were developed based on inputs from the Committee and its subsidiary bodies (A/71/6/Rev.1, Subprogramme 5, Expected Accomplishment (c)).

The project responds to the Legislative mandate 69/225. *Promotion of new and renewable sources of energy*, which recognizes the vital importance of sustainable energy for all, and calls for action to make new and renewable energy sources economically viable by applying enhanced research and development support, making appropriate national and international policy initiative investments, and establishing collaboration between Governments and relevant stakeholders, including the private sector⁷. More importantly, the key takeaway of the project as presented at the 28th Session of the CSE in Geneva⁸ is that all technologies will play a role in attaining sustainable energy in the UNECE region. The overall outcome of the project is that the world cannot achieve the two-degree target in the time frame, and that therefore the mobilization of decarbonization and negative carbon technologies are important, and only a regional approach can lead to a solution.

The project is directly linked to the 2030 Agenda⁹ and the Paris Agreement¹⁰, since the early-warning system is aimed for identifying the status of the countries on their way to achieving sustainable energy targets and tracking their progress in the implementation of both the 2030

⁴ Biennial programme plan and priorities for the period 2018-2019. General Assembly Official Records Seventy-first Session Supplement No. 6. A/71/6/Rev.1 <https://undocs.org/A/71/6/rev.1>

⁵ <https://www.unece.org/energy/welcome/areas-of-work/pathways-to-sustainable-energy/resources.html>

⁶ Available at

http://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/room_documents/CSE_28_2019_INF.1_1_-_Pathways_to_Sustainable_Energy_incl_EG.pdf

⁷ Resolution adopted by the General Assembly on 19 December 2014 [on the report of the Second Committee (A/69/468/Add.9)] 69/225. Promotion of new and renewable sources of energy. UN General Assembly. Sixty-ninth session Agenda item 19 (i). Distr.: General 3 February 2015. A/RES/69/225

⁸ The presentation as available at

http://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/room_documents/CSE_28_2019_INF.1_1_-_Pathways_to_Sustainable_Energy_incl_EG.pdf

⁹ Resolution adopted by the General Assembly on 25 September 2015. Transforming our world: the 2030 Agenda for Sustainable Development. UN General Assembly. Seventieth session. Distr.: General 21 October 2015. A/RES/70/1

¹⁰ Paris Agreement. United Nations 2015. Available at

https://unfccc.int/sites/default/files/english_paris_agreement.pdf

Agenda and the Paris Agreement. The progress-tracking initiative by the UNECE on the three SDG 7 targets on energy efficiency, renewable energy, and energy access, which applied output parameters selection and defined signposts partly representing the SDG indicators, was considered in the project¹¹. Apart from the SDG 7, the project fits with other SDGs identified as a priority to the UNECE, in particular, with the SDGs 9, 11, 13, 17: “Partnerships (SDG 17) between stakeholders including governments, international and regional organizations, businesses, academia and civil society are a driving force of UNECE’s work. This covers three main strategic areas: Improving connectivity within the region (SDGs, 7, 8, 9, 11, 13); Reducing environmental pressures and using resources more sustainably (SDGs 3, 6, 7, 12, 13, 15); Contributing to creating more dynamic and resilient economies (SDGs 7, 8, 9, 11, 13).”¹²

Since there was no universally agreed definition of sustainable energy, the Pathways project developed it on the basis of three pillars embracing the SDGs. While it was not expected that the countries would agree in the end, already the political dialogue about how to reconcile financial, economic, and social concerns with environmental issues and the 2030 Agenda were an achievement.

The project is aligned with the outputs under Subprogramme 5 of the proposed programme budgets for 2016-2017 (par. 20.71 (d) (ii))¹³ and 2018-2018 (Table 20.25 par. 38)¹⁴ as the modelling work outputs, early-warning system concept, policy recommendations, and the workshops of the project, including the capacity-building workshop with representatives from Eastern Europe, Caucasus, and Central Asia, held on 15 May 2019 in Geneva, contribute to increasing the capacity for effective energy efficiency measures development and implementation in the member States. At the workshop, it was also concluded that the energy efficiency was a “low-hanging fruit” that needed to be exploited in all subregions; that, however, the energy efficiency would not be enough to attain sustainable energy and meet the two-degree target; that all technologies would play a role in achieving the Agenda 2030 and carbon neutrality.

In terms of the project structure, the majority (79%) of the survey respondents noticed that the project design and implementation activities were relevant for meeting the objective of the project - the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region. The project activities were built around three Outputs, Milestones, and Expected Achievements, aimed at developing tools and cooperation for harmonized fact-based planning and implementation of actions towards attainment of sustainable energy in the ECE region, as demonstrated in Annex 2. The activities included organization of meetings, storyline development, gap analysis, scenario modelling, early-warning system development, policy formulation, information materials development, dissemination, and reporting.

The work on modelling was implemented by the Institute for Applied Systems Analysis (IIASA, Austria) and the American Pacific North West National Laboratory (PNNL, USA). The early-warning system concept was developed by the German Fraunhofer-Gesellschaft (Fraunhofer) represented by the Institute for Environment, Safety and Energy Technology (UMSICHT) and the Institute for Systems and Innovation Research (ISI), in cooperation with the UNECE. The USA and Germany as key project stakeholders directly funded the work of PNNL and the Fraunhofer

¹¹ Global Tracking Framework: UNECE Progress in Sustainable Energy UNECE ENERGY SERIES No. 49. Available at https://www.unece.org/fileadmin/DAM/energy/images/CSE/publications/Global_Tracking_Framework_-_UNECE_Progress_in_Sustainable_Energy.pdf

¹² Supporting Countries to Achieve the SDGs, <http://www.unece.org/sustainable-development/sdg-priorities.html>

¹³ Proposed programme budget for the biennium 2016-2017. UN General Assembly. Seventieth session. Distr.: General 6 April 2015. A/70/6 (Sect. 20)

¹⁴ Proposed programme budget for the biennium 2018-2019. UN General Assembly. Seventy-second session. Distr.: General 6 April 2017. A/72/6 (Sect. 20)

respectively. According to the interviewed representative of the USA, this funding scheme was chosen by the donors for simplicity and due to its compliance with the existing agreements between the donors and the respective research institutions. The participation of the USA and Germany as key stakeholders and the contribution made by their implementing partners can be regarded as a positive factor: PNNL performed scenario modelling using a model (GCAM) different from that by IIASA (MESSAGE), which allowed for a deeper analysis¹⁵ contributing to Output 1 “Modelling of Sustainable Energy Scenarios”. The Fraunhofer conducted the Technology Survey for Output 1 and made a significant contribution to Output 2 “Early-Warning System” by preparing the early-warning system concept (Annex 2).

According to the information received from the interviewees, the modelling institutions worked in close collaboration. These institutions were selected for the project by the donors; they have a strong track-record, the experience and qualified experts necessary to implement relevant project activities. Individual representatives and Advisory Board members commented that the modeller teams were excellently chosen, and that a very special feature of the project was a unique “collection of political, technical, and modelling expertise brought together and allowed to have an unconstrained dialogue about these issues”.

Considering the relevance of the project to priorities and needs of the member States and beneficiaries/target groups, underlying documents of the UN, and the consistency of its structure with the objective confirmed by the survey and desk research results, it can be concluded that its overall relevance was high.

Effectiveness

Forty-three percent of the surveyed project participants gave high achievement scores to the objective of the project - the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region, and also 43% rated the extent of achievement as moderate (Figure 2).

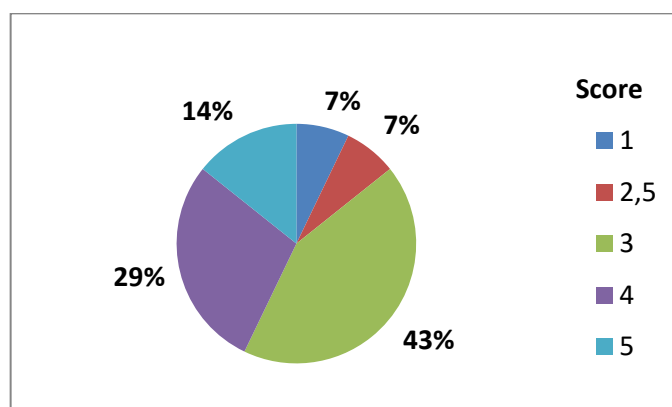


Figure 2. Survey response on the extent of the achievement of the project objective.

Source: Data obtained from the evaluation survey

Seventy percent of the respondents commented (Annex 2, par. 5) that further development to enhance the achievements was desirable; for instance, it was suggested that the objective had been

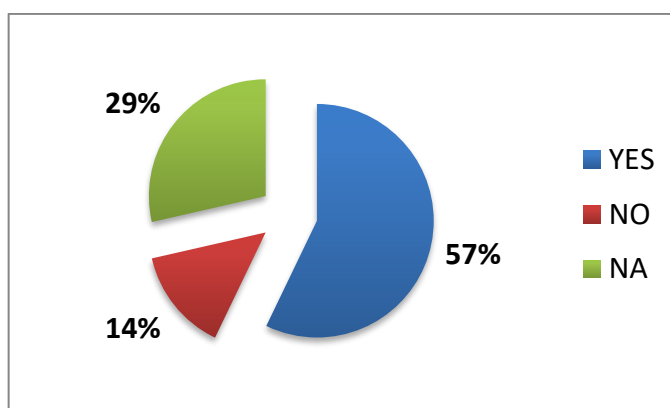
¹⁵ Modelling methodology and results as presented at the 28th Session in Geneva are available at [http://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/room_documents/CSE_28_2019_INF.1_1 - Pathways to Sustainable Energy incl EG.pdf](http://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/room_documents/CSE_28_2019_INF.1_1_-_Pathways_to_Sustainable_Energy_incl_EG.pdf)

“achieved at a high level and could be further developed” if a second phase was funded, “e.g., by looking in more detail at specific technologies and subregions of the UNECE.” Some of the respondents pointed out that the project had laid a solid foundation for taking the achievements forward: “Substantial progress was made in achieving the overall project goals and objectives. However, more time and resources are needed to fulfill the project’s full potential”. “Basement is established for future actions and projects”.

Fifty-seven percent of the survey respondents noted that the actual Project outputs (organized events, developed storylines, technology survey, early-warning system concept, glossary, modelled scenarios, information materials – in accordance with the implemented activities showed in Annex 2) were consistent with and relevant to the overall project objective to increase the capacities of the ECE member States to develop, implement and track national sustainable energy policies aligned with international agreements. The majority (79%) of the respondents rated the actual project outputs as consistent with and relevant to the Expected Accomplishments of the project. Examples of specific comments on the outputs made during the interviews: “Delivering scenarios and modelling are challenging, and a lot has been learned not only in terms of results, but also of the process itself;” “It [the project] gives us a tool [for progressing towards sustainable energy];” and “The way information was presented, and the resulting dialogues in the UN, were extremely well managed and productive.”

The most part of the participants of the survey (65%) gave high achievement scores to the Expected Accomplishments EA1 “Enhanced understanding of the ECE member States of alternative pathways for transitions to a sustainable energy future (related to development of various policy scenarios that enable the countries to make informed decisions)” and EA2 “Enhanced knowledge of the ECE member States to apply early-warning indicators and a mechanism to track implementation of international climate and sustainable development agreements”. The third one, EA3 (Increased capacities of national energy ministries to develop, implement and track national sustainable energy strategies), received mixed ratings (see Annex 5, par. 7). At the Session on 25-27 September 2019 in Geneva, it was reported that Phase I had laid a solid foundation for enhanced capacity building at the national level¹⁶.

More than half (57%) of the surveyed participants confirmed that the project activities had contributed to achievement of the overall project objective to strengthen the national capacity of the member States to develop, implement and track national sustainable energy policies aligned with international agreements (Figure 3).



¹⁶ Report of the Committee on Sustainable Energy on its twenty-eighth session. UN Economic Commission for Europe. Geneva, 25–27 September 2019. Distr.: General 7 October 2019. ECE/ENERGY/123

Figure 3. Survey response on whether the project activities had contributed to the achievement of the overall project objective.

Source: Data obtained from the evaluation survey

According to the Draft Final Assessment report CSE-28/2019/INF.8, materials published at the project website, and the presentations made on 25 September 2019 in Geneva, all planned project activities were implemented and together contributed to the planned Outputs and Milestones achievement (Annex 2).

Sixty-four percent of the survey respondents provided their opinion on how the project had strengthened the national capacity of member States to develop, implement and track national sustainable energy policies aligned with international agreements (Annex 5, par. 10). The opinions can be divided into three groups:

1) Strengthening via technology (40%). Opinion examples include:

- By providing access to an updated, more granular, enhanced, integrated model giving more relevant results for the member States.
- Region-specific technology roadmaps (aligned with international agreements) can act as a guideline for individual countries in that region.
- Data from the project were considered in the development of the national *Law on Alternative Energy Sources and Private-public Partnership in the Field of Energy* [in a country in Central Asia].

2) Strengthening via dialogue (30%). Opinion examples:

- It indicated the role of updating the NDC of the Paris Agreement in every country to achieve the global objective.
- Participation of the members States' representatives in international forums, capacity-building workshops (they included experience exchange), and dissemination by the UNECE of the analysis and research results in the form of circulars, brochures, magazines, and via websites of the organization.
- By involving member States with world experts in the field to understand both the potential and limitations of such modelling.

3) Mixed (30%), e.g., "Activities have this potential, but I can't judge whether national capacities have been strengthened as I do not know enough about specific countries."

The fact that there were challenges / obstacles in the process of the project implementation was confirmed by 72% of the surveyed project participants. Fifty-three percent of the challenges / obstacles named by the respondents were related to resources (time and funding), which is typical for a donor-funded project addressing complex issues. The comments include the following examples:

- Realistically, such projects are multi-year and require stable resources to manage them. A lack of long-term resource to develop experience managing the intersection of energy, modelling, and policy development inevitably causes delays.
- Consider funds to allow more frequent face-to-face debates and dissemination activities.
- Configuring the models to examine the scenarios and the UNECE region was a time-consuming process.

Less than half (43%) of the respondents to the survey noted that there were factors that prevented the actual achievement of the expected results, though the opinions on what these factors were (Annex 5, par. 12) did not form clear groups related to specific achievements, e.g., "Some difficulty for non-modelling experts to understand the output of the models;" "It was not possible

to organize Hard Talk on Renewable Energy in our country [in the BMU region] due to limited resources;” “Policy recommendations to be acknowledged by the member States;” etc.

All of the interviewed project participants were generally positive about the overall effectiveness of the project, and 62% of the interviewees straightforwardly rated it as good. The implemented project activities and their results have been made clearly visible via the project website and at the events (Annex 2).

The Project Proposal contained a list of Indicators of Achievement to measure the project outputs. The Indicators were later excluded from the project logical framework and reports, and replaced by more relevant Milestones as a measure of the project implementation success. According to the UNECE, this happened as the wording used for the Indicators¹⁷ made it difficult to measure and track the progress in achieving the outputs. The Milestones, along with the corresponding Outputs, Expected Accomplishments, and implemented activities, which formed the basis of the evaluation, are demonstrated in Annex 2.

The planned project activities have been implemented and contributed to the achievement of the Expected Accomplishments, Outputs, and Milestones. The effectiveness of the project was high.

Efficiency

According to the project documents, the initiation of the project activities was delayed. As stated in the Project Proposal, the project was scheduled to start in October 2016 and finish in December 2018. The International Institute for Applied Systems Analysis (IIASA, Austria) was recruited at end of April 2017, and the kick-off modeler workshop took place in May 2017 (ECE/ENERGY/2018/1). The UN process was followed without delay by the secretariat. A formal request for cost-neutral project extension until 30 September 2019 was submitted by the UNECE Sustainable Energy Division to the Russian Federation (letter dated 23 March 2018), and a confirmation was received on 8 June 2018. The project results were achieved on time, and the project was presented as planned at the 28th Session in Geneva. Seventy-nine percent of the project participants also evidenced that by their survey responses.

The project activities were funded by the Russian Federation (330,000 USD). The Russian Federation made funds available to the UNECE, which managed the project budget. A large part of this budget was used to cover the fees of the International Institute for Applied Systems Analysis (IIASA), the implementing partner that was selected by the donor and carried out scenario modelling¹⁸. Fifty percent of the survey respondents shared their opinion that the use of the project resources could not have been improved to achieve the same results (Figure 4); no relevant alternatives were proposed.

¹⁷ E.g., IA.1.2 Policy options are developed and endorsed by the ECE member States by Q4/2018; IA.2.2 At least ten ECE member States agree to consider integrating early warning indicators in their national energy policies in 2019-2020; IA.3.1 At least ten ECE member States agree to consider recommendations in their policy making 2019-2020; Source: Project Proposal to be Funded by the Russian Federation. Letter from the Permanent Mission of the Russian Federation to the UN in Geneva to PMU Director UNECE. 9 September 2016

¹⁸ Results presented at the 28th Session in Geneva:

https://www.unece.org/fileadmin/DAM/energy/se/pp/CSE/2019/EnComm28_Sept.2019/25.Sept/Rogner_Project_Results.pdf

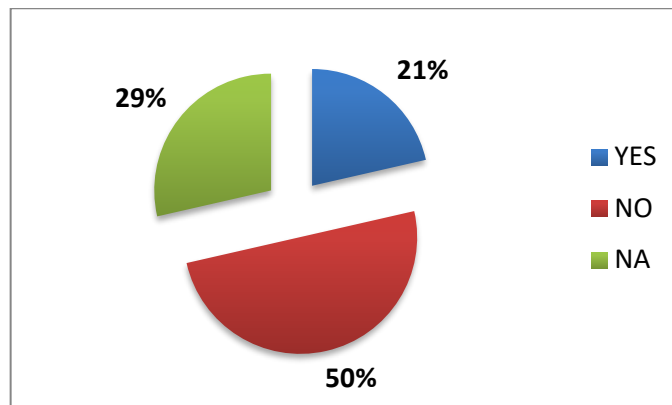


Figure 4. Survey response on whether the use of the project resources could be improved while achieving the same results.

Source: Data from the evaluation survey

The question on how economically the project resources were used received mixed ratings (57% replied “not applicable”, 36% gave high ratings – see Annex 5, par. 15). In general, project participants often avoid making judgements on such matters as they are not fully aware of all financial details; the cost analysis reflecting project funds utilization is provided below in this section.

Fifty percent of the survey respondents stated that the allocated resources were insufficient for achieving the expected results (Annex 5, par. 14). Apart from the specific comments on the resource-related challenges provided in the *Effectiveness* section, it was mentioned that “If more resources [were] allocated, more detailed results [would be received] at the national level;” “Within the limits of the project all is done perfectly. It would be good to have more detailed assessment at the national level.” At the same time, the respondents gave high achievement scores to the Expected Accomplishments (as reported in the *Effectiveness* section), and the consistency of the project results with the plan is evidenced by the project documents (Annex 2). According to the information received from the interviews, the work of the top-level professionals making the Advisory Board mostly did not involve payments from the project budget (apart from the travel costs covered) as their participation was agreed with their primary affiliation organizations. This, along with the organization of events within the framework of large forums and sessions of the Committee on Sustainable Energy, is regarded as a factor compensating the perceived lack of resources and contributing to the increased efficiency of the project resources utilization.

Seventy-nine percent of the surveyed participants of the project stated that the project activities were organized efficiently (Figure 5). Sixty-two percent of the interviewees also clearly stated that in general the project was implemented efficiently.

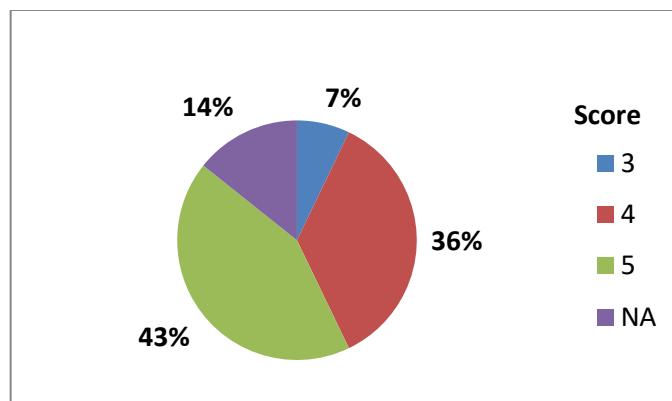


Figure 5. Survey response on how efficiently the project activities were organized.

The cost analysis was based on the information provided by the UNECE and on three documents:

- 1) Approved Project Proposal to be Funded by the Russian Federation. Letter from the Permanent Mission of the Russian Federation to the UN in Geneva to PMU Director UNECE. 9 September 2016;
- 2) Funds Utilization Report. Russian Contribution to the Strengthening capacity of the ECE member States to achieve the energy-related Sustainable Development Goals ("Pathways to Sustainable Energy") (Project 10 No: E274). M1-32ECE:000117. As of 31 December 2018 (Provisional). UNECE.
- 3) United Nations Grants Summary Balance as of 14.10.2019.

The breakdown of the budget requested by the UNECE from the Russian Federation (\$330,000) and the details on the utilization of funds from the Russian contribution are demonstrated in Annex 3. The project costs summary is presented below as Table 1.

Table 1. Project Costs Summary, United States dollars

Budget line	Budgeted	Spent as of 31.12.2018
General Temporary Assistance (GTA)	46,000	43,029
Contractual services	200,000	201,389
Training	20,000	0
Travel of Staff	7,500	14,391
General operating expenses	7,000	486
Total direct cost	280,500	259,295
13% UN Programme Support Cost	42,900	33,708
Total cost*	323,400	293,003

*Excluding the budget allocated for the project evaluation (\$6,600).

Sources: Approved Project Proposal; Funds Utilization Report.

According to the UNECE, a final funds utilization report will be produced and submitted later in 2019.

Analysis of the data demonstrated in Annex 3 and summarized in Table 1 shows the following:

- The largest portion of the funds (\$200,000, or 60.6% of the budget) was earmarked for the “Contractual services”. The Funds Utilization Report confirms that the amount was utilized and even slightly overspent (\$201,389 or 61.0%). According to the UNECE Project Manager, the beneficiary of the amount was IIASA (modelling institution).
- The General Temporary Assistance (GTA) is the budget line with the second largest amount requested in the Project Proposal (\$46,000, or 13.9%). According to the Project Proposal, this line included “Temporary assistance to perform the tasks of general project coordination, content support (policy options, storylines, early-warning system), as well as preparation of outcome and information materials.” The funds were supposed to cover the costs of four months of work of P2 of the UNECE. The Funds Utilization Report shows the Staff Personnel budget line of \$43,029, or 13.0%, which in essence corresponds to the description of the GTA. This way, the staff costs were partially reduced.
- The Project Proposal budget line “Training” (\$20,000, or 6.0%) has no corresponding budget line in the Funds Utilization Report. The project documents confirm that a number of capacity-building, consultation, and coordination events have been organized in Bishkek, Kiev, and Geneva (Annex 2). The UNECE Project Manager confirmed that the costs of the experts’ travel

for capacity building in Bishkek, Kiev, and Geneva were recorded under the “Travel” budget line, which explains the observed mismatch between the “Training” and “Travel” budget lines in the Project Proposal and the Funds Utilization Report.

- The “Travel of staff” budget line of the Funds Utilization Report (\$14,391, or 4.4%), exceeds twice the requested amount of \$7,500 (2.3%, Project Proposal). This was caused by the increased number of business trips related to the project events (see Annex 2, Activities A.1.1 and A.3.3), and duly covered expert travel costs (see above).
- The “Operating and other costs” line of the Funds Utilization Report (only \$484, or 0.14%) represents a considerable saving against the “General operating expenses” line of the Project Proposal (\$7,000, or 2.0%). The saved amount is almost equal to the overspent amount in the previous (“Travel”) budget line.
- On 31 December 2018, the Funds Utilization Report date, the total direct expenditures for the Project were \$259,295 (78.6%), against \$280,500 (85.0%) initially requested to cover the total direct cost. This means that \$21,205 of the amount budgeted for the total direct cost remained unspent (6.4% of the total budget).
- Of the UN Programme Support Costs (requested \$42,900, or 13.0%), \$33,708 (10.2%) had been spent by the Funds Utilization Report date.
- According to the Funds Utilization Report details showed in Annex 3, as of 31 December 2018, the unspent balance was \$36,997 (11.2%), and the remaining project implementation period was nine months.
- It is assumed that the “Interest income” line (\$9,333) in the Funds Utilization Report (Annex 3) represents revenue of the UN from depositing the project funds received from the donor, but temporarily not used, at a financial institution. If this is the case, such financial practice helps to “earn” interest on the funds “waiting” to be utilized, implement more activities, and enhance the project efficiency.

Table 2 presents the project expenditure dynamics during fiscal years 2017-2019.

Table 2. The “Pathways” project expenditures, 2017-2019, United States dollars

Budget line	2017	%	2018	%	2019	%
Contract service	199,920	88.2	1,469	2.2	4,000	9.9
Oper. Other costs	0	0.0	485	0.7	2,600	6.4
Staff personnel	0	0.0	43,029	64.9	6,600	16.2
Travel	667	0.3	13,724	20.7	22,840	56.0
Exp-UN	26,076	11.5	7,632	11.5	4,685	11.5
Total cost	226,663	100	66,339	100	40,725	100

Source: UN Grants Funding Summary Balance as of 14.10.2019

The analysis of the project expenditure dynamics confirms that the largest portion of the funds (88.2%) was earmarked for the “Contractual services”; the payment took place in 2017. As mentioned above, the beneficiary of the amount was IIASA (modelling institution). During 2018, the largest amount (64.9%) was spent on “Staff personnel”: this line with the amount of \$43,029 in Table 2 corresponds to the line “GTA” in Table 1. In 2019, the largest amount (56%) was allocated to “Travel”. According to the UNECE Project Manager, the funds under the “Travel” budget line were used to cover the experts’ travel for capacity building in Bishkek, Kiev, and Geneva.

The overall costs incurred by the “Pathways” project (\$333,727) during the three years exceeded the budget provided by the donor (\$330,000). The deviation (\$3,727, or 1.1%) was not large; it was fully covered by the interest income (\$9,333) mentioned in the Funds Utilization Report (Annex 3). The UN Grants Funding Summary Balance shows that, as of 14.10.2019, the total

available budget was \$10,490. By this date, the budget absorption rate had reached 96.9%, all main project activities had been implemented, and the Milestones achieved (Annex 2). It can be concluded that the project funding was utilized in an efficient way.

Though the resources of the project were limited, it demonstrated a wide range of successfully implemented activities and a high satisfaction of the surveyed and interviewed project participants. The efficiency of the project can be rated as high.

Comparison with other projects

The evaluation ToR called for comparison of costs and use of resources with other donor-funded projects to make sure that the project was implemented in the most efficient way compared to alternatives. The Consultant approached the task more widely and developed a methodology for comparative value assessment of projects on the basis of five criteria (see Annex 8).

Given the limited time and availability of information from other donors, it was agreed with the UNECE Project Manager and the PMU to select for comparison three projects (other than the “Pathways”) implemented by different divisions of the UNECE, which had already been completed and evaluated. The present assessment is an attempt to focus primarily on the aspects that are most important and relevant in the context of the “Pathways” project evaluation; a deeper comparative analysis would make a subject for an individual research work.

For assessment, the Consultant selected projects from three divisions: 1) Sustainable Energy Division, 2) Environment Division and 3) Forests, Land and Housing Division. The selected projects are regarded as comparable since all of them are related to energy. Each project was assigned a reference number to be used in Table 3 (below).

Project 1 – “Pathways to Sustainable Energy” (Sustainable Energy Division).

Project 2 – “Enhancing National Capacities for Development and Implementation of the Energy Efficiency Standards in building in the UNECE Region” (Sustainable Energy Division).

Project 3 – “Capacity-building for Cooperation on Dam Safety in Central Asia, Phase 3” (Environment Division).

Project 4 – “Strengthening national capacities for sustainable housing and urban development in countries with economies in transition” (Forests, Land and Housing Division).

The main sources of information were the draft final assessment report (Project 1) and final evaluation reports (Projects 2, 3, and 4). Table 3 below shows the assessment results.

Table 3. Comparative assessment of projects: rating the five criteria on the 0-3 scale

№	Criteria	Project 1	Project 2	Project 3	Project 4
1	Achievement of the project objective(s) and key indicators	3.0	2.0	2.5	3.0
2	Level of stakeholder satisfaction	2.5	2.5	2.5	2.5
3	Financial mechanisms and instruments applied	2.5	2.5	2.5	3.0
4	Cost management	2.5	2.5	2.5	3.0
5	Project deadlines	2.5	2.5	3.0	3.0
	Total scores	13.0	12.0	13.0	14.5

Since Project 4 received the highest total score in Table 3, within the limits of the applied comparison methodology, it has the highest comparative value added among the projects selected for the assessment.

The highest score of Project 4 can be explained by the fact that the delivered outputs exceeded the initial plan by 30%, with the effectiveness that was highly above average. The efficiency of Project 4 implementation was enhanced by cost reduction due to well-developed partnerships with international, regional, and national development organizations and agencies, and encouraging the delivery of cash and in-kind contributions through these partnerships. Project 4 also made a significant step forward in the capacity development of beneficiaries, though there was no evidence that all stakeholders were absolutely satisfied (score 2.5 instead of 3.0). There were no delays in the implementation schedule of Project 4. It should be noted that this project was the third phase of the intervention built up on the basis of the experience and connections developed in the previous phases.

Regarding the “Pathways” project assessment, the criterion *Achievement of the project objectives and key indicators* deserved the highest score (3.0). The other criteria also received high scores (2.5), which, however, were slightly impacted by minor factors calling for further refinement of the project. For example, the project start was delayed for a few months, and the project management had to request (and obtained) the extension from the donor. The funding mechanism when two out of three donors finance the project activities directly rather than via the UNECE is not uncommon, but it withdraws the UNECE from the control over a significant part of the funds, although the project managers were aware of the results of all activities.

Compared to alternatives, the “Pathways” project was implemented in an efficient way. The same follows from the above analysis and the responses of 50% of the survey respondents.

Sustainability

Half of the project participants (50%) who responded to the survey stated that the member States were likely to benefit from this project after its completion under certain circumstances. The mentioned circumstances (Annex 5, par. 19) formed two groups: related to the member States (e.g., need for further collaboration; 29%), related to the project content and implementation (e.g., Phase II; further detailed analysis; stronger focus on the national level; 71%).

Forty-three percent of the survey respondents agreed that it would be overburdening for the recipient countries and stakeholders to continue the benefits of the project with no external support, and 54% of the interviewed participants expressed doubts in the sustainability of the project results in case they were not enhanced in the process of further development. Individual notes by the project Advisers mentioned that the process initiated and carried forward by the project was ongoing, and that additional activities at the subregional and national levels were required to further strengthen the countries’ capacities. For example, it was pointed out that "For these issues you need a lot of time to bring everybody up to speed, and a little more discussion time on how to interpret data, on what it all means, for the governments to understand how to use it. Results of the modelling look very numerical, there is a lot of data”.

Responding to the survey, 43% of the project participants suggested that certain conditions were required for the stakeholder engagement to continue, be scaled up, replicated or institutionalized after the completion of the project (Figure 6), for instance, that the project “would highly benefit from a second phase as strategies and options that were developed are useful, but the regional dialogue and further exploration of pathways and their tracking would require additional support (not yet institutionalized).” Also, the received comments (Annex 5, par. 21), mentioned the

implementation of “subregional deep dives” and “the cooperation of official organisms” as the conditions required for the stakeholder engagement to continue.

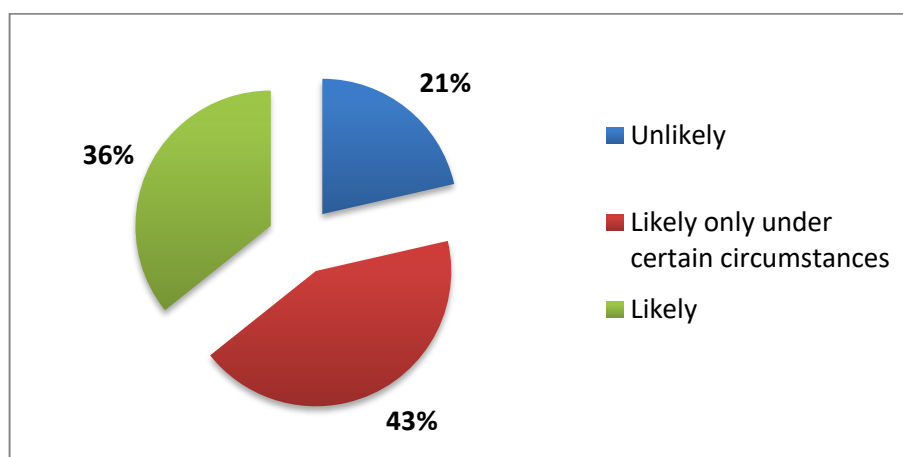


Figure 6. Survey response on the likeliness of the stakeholder engagement to continue or develop after the project completion.

Source: Data obtained from the evaluation survey

The extent to which the project partners and beneficiaries ‘owned’ the outcomes of the work was rated as high by 35% of the respondents, while in general the responses were mixed, possibly due to the blurred understanding of ‘ownership’ at this stage of the intervention. According to the UNECE, all the data and information will be provided on the Pathways project website upon the completion of the final project reporting that is currently undergoing.

Fifty percent of the respondents stated that activities/features aimed at building up the resilience to future risks were incorporated in the project framework. The provided examples (Annex 5, par. 24) mostly mentioned the development of new tools, knowledge, and vision to pursue the sustainable energy future. For example, it was mentioned that “the pathways approach as opposed to conventional scenario approaches or straight predictions does facilitate the assessment of uncertainties and their consequences in the form of opportunities and risks, as well as the options to capture the opportunities and mitigate the risks.” The respondents also suggested that the application of modelling frameworks for future risks examination, developing international cooperation, and increasing the pace of transition to sustainable energy resulting from the project implementation were important for building up the resilience.

Among the major factors that contributed to the achievement or non-achievement of sustainability of the project results, the respondents to the survey most often mentioned factors related to the project management and financing (e.g. project management of high quality, strong stakeholder involvement, good selection of project participants, general financing, etc.; 55%). Further comments can be found in Annex 5, par. 25.

Sixty-two percent of the surveyed project participants suggested their ideas on how the project could be replicated in the UNECE region or in other regions (Annex 5, par. 27). Most often (50%), these ideas included conducting a more detailed analysis, and adaptation of the project to the subregions and the issues observed in individual countries.

The project management actively collaborated with similar projects implemented by other divisions of the UNECE, UN ESCAP, OSCE, UNDP, etc. Most often, the collaboration took the form of regular information exchange on the projects, invitations to attend project events, mutual participation in the events, expert group meetings, and organization of joint fora. There is an evidence of the Project Manager’s aspiration to substantiate complementarity between the “Pathways to Sustainable Energy” and similar projects implemented by the UNECE Environment

Division (“Deployment of Renewable Energy” project) and the UN ESCAP (“NEXSTEP” project). These synergetic activities contribute to mutual awareness and help avoid possible duplication of efforts.

The project results were presented to the ESCAP member States and colleagues in Bangkok on 7-8 October 2019 and, as reported by the UNECE, were very well received. The results were presented in two sessions: i) Session on accelerating the implementation of SDG7 and NDC by developing technology and policy roadmaps – focus: energy modelling and scenario analysis to inform policy decisions for the 2030 energy transition, and ii) Workshop with a Subregional focus on Implementing Pathways to Sustainable Energy in Eastern Europe, the Caucasus and Central Asia¹⁹.

The extent to which the objectives of the project remained valid received high scores from 79% the project participants who completed the survey. Aligned with the Agenda 2030, the project supports the transition to the “world where human habitats are safe, resilient and sustainable and where there is universal access to affordable, reliable and sustainable energy.”²⁰ The objectives of the project are also aligned with the Committee’s programme of work of the sustainable energy subprogramme for 2020²¹, presented at the 28th Session in Geneva on 25-27 September 2019. The subprogramme contributes to the objective “to ensure access to affordable and clean energy for all and reduce greenhouse gas emissions and the carbon footprint of the energy sector in the region”, which is directly supported by the objectives of the project: a) (overall objective) to increase the capacities of ECE member States to develop, implement and track national sustainable energy policies aligned with international agreements; and b) the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region.

The project has provided solid outputs at the regional level. However, the interviewed and surveyed project participants expressed concern over the ability of all stakeholders and beneficiary countries to continue developing the benefits of the project at the subregional and national levels. In particular, it was mentioned that the stakeholders and beneficiary countries could benefit from further skills development for model application and making use of modelling results. The project results can be rated as moderately sustainable.

Gender equality and human rights aspects

In spite of the fact that gender equality and human rights dimension was neither the main topic of the project nor explicitly integrated into the Project Proposal, activities, and self-assessment reports, none of the surveyed participants stated that it was not considered in the project. A significant proportion of the respondents agreed that the project applied gender and rights-based approaches at different stages of its development (64% - in design of activities and results, 57% - in implementation of activities).

Forty-three percent of the survey respondents confirmed that the UNECE advocated for gender equality in the project’s area of work. The project builds on the UNECE’s assessment of the status of achievement of the three SDG 7 targets on energy efficiency, renewable energy, and energy

¹⁹ Materials available at <https://www.unece.org/energy/welcome/areas-of-work/energy-efficiency/meetings-and-events/energy-efficiency/international-forum-on-energy-for-sustainable-development/2019/10th-international-forum-on-energy-for-sustainable-development/docs.html>

²⁰ Resolution adopted by the General Assembly on 25 September 2015. Transforming our world: the 2030 Agenda for Sustainable Development. UN General Assembly. Seventieth session. Distr.: General 21 October 2015. A/RES/70/1

²¹ Draft programme of work of the sustainable energy subprogramme for 2020. UN Economic and Social Council. Twenty-eighth session. Geneva, 25-27 September 2019. Distr.: General 11 July 2019. ECE/ENERGY/2019/3

access, which points out that “.SDG 7 should not be seen in isolation but as enabling the attainment of the wider set of SDG goals”²² SDG 5 stating the targets for achieving gender equality has been identified as benefitting from achieving sustainable energy as women are known to bear the greatest burden of energy poverty²³. The UNECE also directly advocates for gender equality in such documents as the Gender Parity Strategy²⁴, and the UNECE Policy on Gender Equality and the Empowerment of Women²⁵, promoting integration of gender perspectives in the activities and events under the Committee, and tailoring the outputs of work in the area of sustainable energy to the needs of both women and men. The Committee on Sustainable Energy noted the dialogue on gender and energy during its 28th Session (Geneva, 25-27 September 2019), included this aspect in the report on the Session²⁶, and requested regular updates on the integration of gender activities into the work of the sustainable energy subprogramme.

Figures 7-9 below represent analysis of the lists of participants from the workshops in Bishkek (12-14 June 2018), Kiev (14 November 2018), and Geneva (14-15 May 2019) provided by the UNECE. According to the analyzed data, the highest share of female participants in these events was 34%. The female participation in the Project Advisory Board was 33% (Figure 10), and among the Expert Groups Focal Points and Chairs, 13% were women (Figure 11).

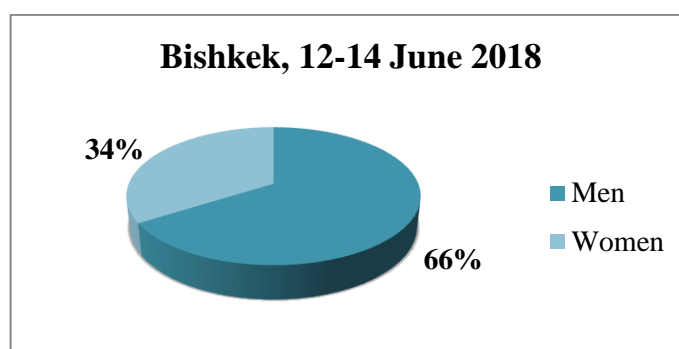


Figure 7. Gender representation at the workshop in Bishkek
Source: Lists provided by the UNECE

²² “Global Tracking Framework: UNECE Progress in Sustainable Energy” available at https://www.unece.org/fileadmin/DAM/energy/images/CSE/publications/Global_Tracking_Framework_-_UNECE_Progress_in_Sustainable_Energy.pdf

²³ Accelerating SDG7 Achievement. Policy Briefs in Support of the First SDG7 Review at the UN High-Level Political Forum 2018. Developed by ENERGIA, World Bank Group/ESMAP and UN Women. In collaboration with SEforAll and IEA. Available at https://sustainabledevelopment.un.org/content/documents/18053SDG7_Policy_Briefs_and_Summary_18April2018.pdf

²⁴ Available at http://www.unece.org/fileadmin/DAM/Gender/publications_and_papers/UNECE_Gender_Parity_Strategy.pdf

²⁵ Available at http://www.unece.org/fileadmin/DAM/Gender/publications_and_papers/UNECE_Policy_on_GEEW_Final.pdf

²⁶ Report of the Committee on Sustainable Energy on its twenty-eighth session. UN Economic Commission for Europe. Geneva, 25–27 September 2019. Distr.: General 7 October 2019. ECE/ENERGY/123.

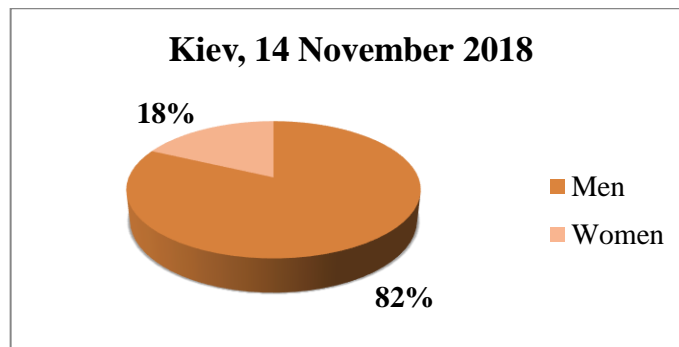


Figure 8. Gender representation at the workshop in Kiev
Source: Lists provided by the UNECE

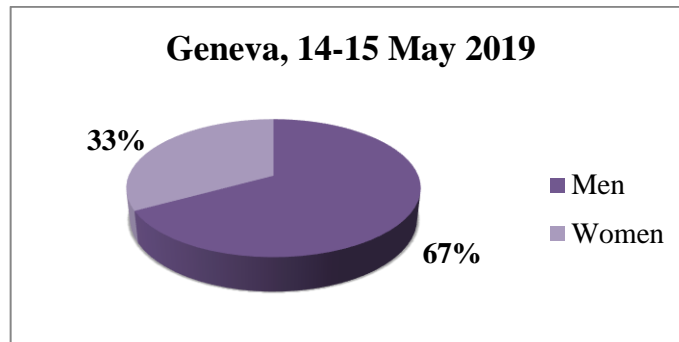


Figure 9. Gender representation at the workshop in Geneva
Source: Lists provided by the UNECE

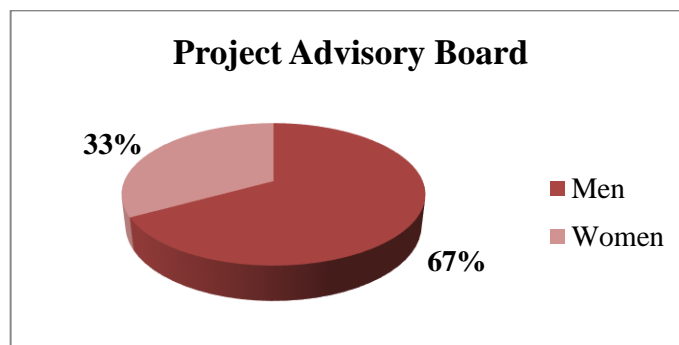


Figure 10. Gender representation in the Project Advisory Board
Source: Lists provided by the UNECE

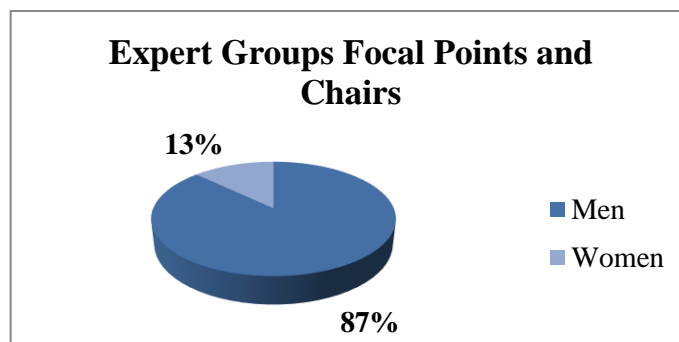


Figure 11. Expert Groups Focal Points and Chairs: gender representation
Source: Lists provided by the UNECE

The positions and institutions of affiliation of the project experts and participants from the list provided by the Project Manager evidence that they were selected according to their qualifications

and experience in the field of energy, where women are mostly underrepresented²⁷. According to the UNECE, their staff strongly encouraged and tried to engage more women in the project and events, striving for gender balance. The most part (57%) of the surveyed project participants indicated that, as intended, women and men were equally able to access the project benefits.

The three Pillars of the Sustainable Energy definition developed within the framework of the project (see CSE-28/2019/INF.8) are closely intertwined with the Human Rights: in the modern world, the stable overall access to energy with minimal adverse impacts on the environment and human health is an essential prerequisite for human well-being (Universal Declaration of Human Rights, Article 25), realization of the economic, social and cultural rights (Article 22), and access to education (Article 26)²⁸. However, no explicit references to these or other human rights related facts have been found in the project documentation.

²⁷ E.g., see the Gender Equality report by IEA available at <https://www.iea.org/media/topics/gender/GenderStatusReport-English.pdf>, and the report by The Advocates for Human Rights produced at the request of the UNECE Group of Experts on Coal Mine Methane at https://www.unece.org/fileadmin/DAM/energy/images/CMM/CMM_CE/AHR_gender_diversity_report_FINAL.pdf

²⁸ The Universal Declaration of Human Rights is available at https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf

Conclusions and recommendations

The **overall conclusion** of the evaluation is that the project was highly relevant, highly effective, and demonstrated high efficiency. The project results are moderately sustainable.

The evaluation has reached the following **conclusions**:

1. The relevance of the project to priorities and needs of the member States, beneficiaries/target groups, and the underlying documents of the UN (e.g., Biennial programme plan and priorities for the period 2018-2019, Proposed programme budget for the biennium 2016-2017, Proposed programme budget for the biennium 2018-2019, Transforming our world: the 2030 Agenda for Sustainable Development) was high.
2. All the planned project activities have been implemented and contributed to the achievement of the Expected Accomplishments, Outputs, and Milestones. The effectiveness of the project was high.
3. The project demonstrated a wide range of successfully implemented activities and a high satisfaction of the surveyed and interviewed project participants. In spite of the delayed start of the project, the results were achieved in due course. The overall efficiency of the project implementation was high. The comparison of the project with the three selected UNECE projects demonstrated that the project was implemented in an efficient way, compared to alternatives.
4. The project has provided solid outputs at the regional level; the interviewed and surveyed project participants expressed concern over the ability of all stakeholders and beneficiary countries to continue developing the benefits of the project at the subregional and national levels. The stakeholders and beneficiary countries could benefit from further skills development for model application and making use of modelling results. The project results can be rated as moderately sustainable.
5. Though gender equality and human rights dimension was neither the main topic of the project nor explicitly integrated into the Project Proposal, activities, and reports, both women and men were able to access its results. According to the analyzed data, the share of female participants in the project events ranged from 18% to 34%. The UNECE directly advocates for gender equality in such documents as the Gender Parity Strategy²⁹, and the UNECE Policy on Gender Equality and the Empowerment of Women³⁰. The Committee on Sustainable Energy noted the dialogue on gender and energy during its 28th Session (Geneva, 25-27 September 2019)³¹ and requested regular updates on the integration of gender activities into the work of the sustainable energy subprogramme.
6. The Indicators of Achievement to measure the project outputs were later excluded from the project logical framework and reports. They were replaced by more relevant Milestones as a measure of the project implementation success. According to the UNECE, the language used to

²⁹ Available at

http://www.unece.org/fileadmin/DAM/Gender/publications_and_papers/UNECE_Gender_Parity_Strategy.pdf

³⁰ Available at

http://www.unece.org/fileadmin/DAM/Gender/publications_and_papers/UNECE_Policy_on_GEEW_Final.pdf

³¹ Report of the Committee on Sustainable Energy on its twenty-eighth session. UN Economic Commission for Europe. Geneva, 25–27 September 2019. Distr.: General 7 October 2019. ECE/ENERGY/123.

formulate the Indicators created limitations and made it difficult to measure and track the progress in achieving the outputs.

Recommendations:

1. There is no evidence that the project requires amendments to increase its relevance to the priorities and needs of the member States. The UNECE may wish to continue disseminating the project outputs as wide as possible using, among others, electronic means: updating the relevant section of the UNECE's portal; emailing and mailing newsletters, documents, and reports directly to the current and possible future project participants in order to maintain their awareness.
2. Further development to enhance the project achievements could benefit the member States: for instance, enhanced capacity-building and expertise development to build on the effectively implemented activities 2016-2019.
3. If the intervention is taken forward, it might be further focused on the subregional and national levels, as the member States are at an early stage of addressing the complex and vitally important issues of pathways to sustainable energy.
4. To include gender and human rights aspects in the design of future projects, the UNECE may consider: a) further encouraging stakeholder/beneficiary organizations to increase the participation of female experts and decision-makers from their side in project events, e.g., by including a special notice into the invitations to these events; b) further encouraging female experts to join the Project Advisory Board and especially the Expert Groups Focal Points and Chairs; c) introducing in the project design a number of measurable gender and human rights related indicators and targets to report on the progress made.
5. When preparing project concepts and ToRs, the UNECE managers should formulate Indicators of Achievement that can be easily measured to track the project progress and reflected in project documents.

Annexes

Annex 1. Abbreviations, Tables, and Figures

Abbreviations

BMU	Belarus, Moldova and Ukraine
Fraunhofer	Fraunhofer-Gesellschaft (Fraunhofer Society)
IEA	International Energy Agency
IIASA	International Institute for Applied Systems Analysis
IRENA	International Renewable Energy Agency
ISI	Institute for Systems and Innovation Research
KPI	Key Performance Indicator
NA	Not Applicable
NDC	Nationally Determined Contributions
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OSCE	Organisation for Security and Co-operation in Europe
PMU	Project Management Unit
PNNL	Pacific North West National Laboratory
SDG	Sustainable Development Goal
SEforAll	Sustainable Energy for All
ToR	Terms of Reference
UMSICHT	Institute for Environment, Safety and Energy Technology
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USA	United States of America

Tables

Table 1	Project Costs Summary, United States dollars
Table 2	The “Pathways” project expenditures, 2017-2019, United States dollars
Table 3	Comparative assessment of projects: rating the five criteria on the 0-3 scale

Figures

Figure 1	Survey response on the relevance of the project to the needs and priorities of the target groups / beneficiaries
Figure 2	Survey response on the extent of the achievement of the project objective
Figure 3	Survey response on whether the project activities had contributed to the achievement of the overall project objective
Figure 4	Survey response on whether the use of the project resources could be improved while achieving the same results
Figure 5	Survey response on how efficiently the project activities were organized
Figure 6	Survey response on the likeliness of the stakeholder engagement to continue or develop after the project completion
Figure 7	Gender representation at the workshop in Bishkek
Figure 8	Gender representation at the workshop in Kyiv
Figure 9	Gender representation at the workshop in Geneva
Figure 10	Gender representation in the Project Advisory Board
Figure 11	Expert Groups Focal Points and Chairs: gender representation

Annex 2. Outputs, Milestones, Expected Accomplishments, and implemented project activities.

Outputs, Milestones, Expected Accomplishments, and activities. Based on CSE-28/2019/INF.8, project website, and the 28th Session on 25-27 September 2019 in Geneva.

Outputs, Milestones, and Expected Accomplishments	Activity	Implementation
<p>Output 1: Modelling of Sustainable Energy Scenarios</p> <p>Milestone (a): Development of sustainable energy policy and technology options towards 2050 supported by modelling and experts' insights</p> <p>EA1: Enhanced understanding of the ECE Member States of alternative pathways for transitions to a sustainable energy future</p>	A.1.1: Organization of three Coordination Meetings	30-31 May 2017, Oberhausen, Germany 7-8 March 2018, Vienna, Austria 26 September 2018, Geneva, Switzerland 24-25 May 2019, Geneva, Switzerland 16 September 2019, Geneva, Switzerland Final results presentation on 25 September 2019, Geneva, Switzerland
	A.1.2: Development of Storylines	Storylines developed and evolved during the course of the project into three distinctive policy scenarios
	A.1.3: Conduct Technology Survey	Conducted by Fraunhofer, available at https://www.unece.org/fileadmin/DAM/energy/se/pdfs/Pathways_to_SE/Report_Technology_Portfolio_UMSI_CHT_ISI_FINAL.pdf
	A.1.4: Conduct Modelling of Scenarios	Conducted by IIASA (MESSAGE model) and PNNL (GCAM mode), available at https://www.unece.org/fileadmin/DAM/energy/se/pp/CS/E/2019/EnComm28_Sept.2019/25.Sept/Rogner_Project_Results.pdf and https://www.unece.org/fileadmin/DAM/energy/se/pp/CS/E/PATHWAYS/2019/ws_Pathways_14-15.May.2019/GCAM_results.pdf The scenario analyses comprised three distinct stages: 1) Base scenario (SSP2); 2) SSP2 + current policies (including NDCs, energy policies, etc.); 3) Base + current policies + adaptive policy pathways to achieve targets.
	Activity A.1.5: Undertaking an Assessment of Existing Strategies and Gap Analysis	Conducted as part of the modelling and scenario development work. The project team assessed existing strategies such as national energy strategies and targets, as well as NDCs outlining climate targets. The analysis of different scenarios provided insights into the gaps existing between the strategy in place and the international energy and climate targets set. UNECE undertook the first assessment of the status of achievement of the three SDG 7 targets through the report “Global Tracking Framework: UNECE Progress in Sustainable Energy” available at https://www.unece.org/fileadmin/DAM/energy/images/CSE/publications/Global_Tracking_Framework_-_UNECE_Progress_in_Sustainable_Energy.pdf
Activity A.1.6: Organization of (a) workshop(s) to develop	14 June 2017, Astana, Kazakhstan 29 September 2017, Geneva, Switzerland 5-6 March 2018, Vienna, Austria	

Outputs, Milestones, and Expected Accomplishments	Activity	Implementation
	and identify policy options	12-14 June 2018, Bishkek, Kyrgyzstan 12-15 November 2018, Kiev, Ukraine 4 April 2019, Webinar 14 – 15 May 2019, Geneva, Switzerland
	Activity A.1.7: Preparation of report outlining policy options (based on modelling)	A glossary of key vocabulary/terminology used for the project with inputs from the Bureau drafted and published at https://www.unece.org/energy/welcome/areas-of-work/pathways-to-sustainable-energy/resources.html Project key insights and policy recommendations were finalised on 15 May 2019 in the Stakeholder Consultation Workshop and presented on 16 May 2016 to the Committee on Sustainable Energy at the open-ended consultations. The final results presented in Geneva on 25 September 2019 are available here http://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/room_documents/CSE_28_2019_INF.11_-_Pathways_to_Sustainable_Energy_incl_EG.pdf
Output 2: Early-Warning System Milestone (b): Development of a concept of early-warning system to monitor if achievement of sustainable energy objectives is on track	Activity A.2.1: Develop Key Performance Indicators (KPIs) and Signposts	A selection of energy-related SDG indicators has been prepared. The fulfilment of these targets will be integrated in the scenario formulating and analysis, and should further play a role in setting Key Performance Indicators (KPIs) and signposts. As no universally agreed definition exists, a three-pillar definition of sustainable energy embracing the SDGs has been prepared (based on a stakeholder workshop held on 5-6 March 2018 and subsequent Committee Bureau consultation).
EA2: Enhanced knowledge of the ECE Member States to apply early-warning indicators and a mechanism to track implementation of international climate and sustainable development agreements	Activity A.2.2: Development of an Early-Warning Mechanism Concept	Developed by Fraunhofer and the UNECE, available at http://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/room_documents/CSE_28_2019_INF.10_-_Early_Warning_System_Concept.pdf
	Activity A.2.3: Development of Information Materials	Content is published at https://www.unece.org/energy/pathwaystose.html The glossary including the definition of sustainable energy is available at: https://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/PATHWAYS/Glossary_Pathways.To.SE.Project.pdf
Output 3: Policy Dialogue on Adaptive Policy Pathways	Activity A.3.1: Formulation of Adaptive Policy Pathways	The modelling results specify the time-evolution of policies needed to achieve the set objectives. The results are currently specified for 2030 and 2050. To initiate the discussion, the formulation of adaptive policy pathways was part of the agenda at

Outputs, Milestones, and Expected Accomplishments	Activity	Implementation
<p>Milestone (c): Facilitation of a high-level political dialogue</p> <p>EA1: Increased capacities of national energy ministries to develop, implement and track national sustainable energy strategies</p>		<p>the modeller kick-off workshop on 30-31 May 2017. The policy pathways were further developed at various workshops held from June 2017 to May 2019 (see activities A.1.6. and A1.7.) and the report at https://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/ECE_ENERGY_2019_1_Pathways_Final.pdf</p>
	<p>Activity A.3.2: Formulation of Targeted Policy Recommendations and Preparation of Output Document</p>	<p>The results were represented on 25 September 2019 in Geneva, available at http://www.unece.org/fileadmin/DAM/energy/se/pdfs/CSE/comm28.2019/room_documents/CSE_28_2019_INF.11_Pathways_to_Sustainable_Energy_incl_EG.pdf</p> <p>The project team will work on final project reporting from October to December 2019. Project stakeholders will have the opportunity to contribute to the final report and will be contacted accordingly.</p>
	<p>Activity A.3.3: Organization of three Policy Dialogue Events</p>	<p>14 June 2017, Astana, Kazakhstan 27 September 2017, Geneva, Switzerland 26 September 2018, Geneva, Switzerland 25 September 2019, Geneva, Switzerland</p>
	<p>Activity A.3.4: Development of Outreach Materials and Outreach for Phase II</p>	<p>Available at https://www.unece.org/energywelcome/areas-of-work/pathways-to-sustainable-energy/resources.html and https://www.unece.org/fileadmin/DAM/energy/se/pp/CS/E/EnComm27_Sept2018/26.09/1_Holger.Rogner.p</p> <p>An Outreach Workshop will be held at 10th International Forum on Energy for Sustainable Development on 7-8 October 2019, Bangkok, Thailand</p>

Annex 3. Budget analysis

Budget requested from the Russian Federation

No.	Budget line	Amount, USD	Per cent
1.	General Temporary Assistance (GTA)	46,000	13.94
2.	Contractual services	200,000	60.61
3.	Training	20,000	6.06
4.	Travel of Staff	7,500	2.27
5.	General operating expenses	7,000	2.12
	Total direct cost	280,500	85.00
6.	13% UN Programme Support Cost	42,900	13.00
7.	2% for evaluation	6,600	2.00
	TOTAL BUDGET	330,000	100.0

Source: Project Proposal to be Funded by the Russian Federation, 2016

Funds Utilization Report

No.	Budget line	Amount, USD	Per cent
I.	Contributions: Funds received in 2016	330,000	100.00
II.	Expenditures		
	A. Direct expenditures		
1.	Staff Personnel	43,029	13.04
2.	Contract Service	201,389	61.03
3.	Operating and other costs	486	0.14
4.	Travel	14,391	4.36
	Sub-total A:	259,295	78.57
	B. Programme Support Costs	33,708	10.21
	C. Total Expenditures (A+B)	293,003	88.78
III.	Unspent balance (I-II)	36,997	11.22
IV.	Interest Income	9,333	
V.	Balance	46,336	

Source: Russian Contribution to the Strengthening Capacity of the ECE member States to achieve the energy-related sustainable Development Goals ("Pathways to Sustainable Energy"), Funds Utilization Report as of December 2018.

Annex 4. Survey questionnaire

EVALUATION: RATING, COMMENTS, RECOMMENDATIONS
**THE UNECE PROJECT “STRENGTHENING CAPACITY OF THE ECE
MEMBER STATES TO ACHIEVE THE ENERGY-RELATED SUSTAINABLE DEVELOPMENT GOALS”
 (“PATHWAYS TO SUSTAINABLE ENERGY”)**

Dear project participants,

The UNECE are currently conducting evaluation of the Project on strengthening capacity of the ECE Member States to achieve the energy-related Sustainable Development Goals (“Pathways to Sustainable Energy”)³². We would be very grateful if you could contribute to the Project evaluation by completing this questionnaire.

Please rate the following on a scale of 1 – 5 (from 1 – “poor” to 5 – “excellent”), or select YES/NO. Further comments and recommendations are welcome.

1. The objective of the Project is the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region. Please rate:

a. The extent to which the Project design was appropriate for meeting this objective.	Rate
b. The extent to which the Project implementation activities were appropriate for meeting this objective	Rate

2. Please rate the relevance of the Project to the priorities and needs of the UNECE Member States.

Rate

Your comments and recommendations:

3. Please rate the relevance of the Project to the priorities and needs of the target group/beneficiaries:

a. Political decision-makers.	Rate
b. National governments.	Rate
c. Private sector.	Rate

4. Is the Project relevant to the broader work of the UNECE? **YES / NO**

Your comments and recommendations:

5. Please rate the extent to which the Project objective - the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region – has been achieved.

Rate

Your comments and recommendations:

³² <https://www.unece.org/energy/pathwaystose.html>

6. Please rate the extent to which the actual Project outputs are consistent with and relevant to the overall Project objective to increase the capacities of the ECE Member States to develop, implement and track national sustainable energy policies aligned with international agreements. Rate

Your comments and recommendations:

7. Please rate the extent to which the following Expected Accomplishments of the Project have been achieved:

EA1: Enhanced understanding of the ECE Member States of alternative pathways for transitions to a sustainable energy future (related to development of various policy scenarios that enable the countries to make informed decisions).	Rate
EA2: Enhanced knowledge of the ECE Member States to apply early-warning indicators and a mechanism to track implementation of international climate and sustainable development agreements.	Rate
EA3: Increased capacities of national energy ministries to develop, implement and track national sustainable energy strategies.	Rate

8. Please rate the extent to which the actual Project outputs are consistent with and relevant to the Expected Accomplishments of the Project. Rate

Your comments and recommendations:

9. Have the Project activities strengthened the national capacity of the Member States to develop, implement and track national sustainable energy policies aligned with international agreements? **YES / NO** (if you circled 'YES' – go to 10, if 'NO' – to 11)

10. Please describe how the Project activities have strengthened the national capacity of the Member States to develop, implement and track national sustainable energy policies aligned with international agreements.

Your comments and recommendations:

11. Were there any challenges/obstacles in the process of the Project implementation? **YES / NO**
If you answered 'YES', please provide details below.

Your comments and recommendations:

12. Were there any factors that prevented the actual achievement of the expected results? **YES / NO**
If you answered 'YES', please provide details below.

Your comments and recommendations:

13. Were the Project results achieved on time? **YES / NO**

Your comments and recommendations:

14. Were the resources allocated to the Project sufficient for achieving the expected results? **YES/ NO**

Your comments and recommendations:

15. How economically were the Project resources used? Please provide your rating.

Rate

Your comments and recommendations:

16. In your opinion, could the use of the Project resources be improved while achieving the same results? **YES / NO** If you answered 'YES', please provide details on how it could be improved.

Your comments and recommendations:

17. How efficiently were the Project activities organized? Please provide your rating.

Rate

Your comments and recommendations:

18. Was the Project implemented in the most efficient way compared to alternatives? **YES / NO**
How do the costs and use of resources compare with other similar projects (within the UNECE, other regional commissions, other UN agencies, or other organizations and initiatives)?

Your comments and recommendations:

19. How likely are the ECE and Member States to benefit from this Project after its completion?
Please select.

- a. Highly likely.
- b. Likely only under certain circumstances: *(please specify)* _____
- c. Unlikely.

20. After the Project completion, would it be overburdening for the recipient countries and stakeholders to continue the benefits of the Project with no external support? **YES / NO**

Your comments and recommendations:

21. How is the stakeholder engagement likely to continue, be scaled up, replicated or institutionalized after the completion of the Project?

- a. Likely
- b. Likely only under certain circumstances: *(please specify)* _____
- c. Unlikely

22. Please rate the extent to which the partners and beneficiaries 'own' the outcomes of the work.

Rate

Your comments and recommendations:

23. Did the Project design and implementation activities incorporate building up the resilience to future risks? **YES / NO** (if you circled **YES** – go to 24, if **NO** – go to 25)

24. What features/activities were incorporated in the Project design and implementation activities to build up the resilience to future risks?

Your comments and recommendations:

25. In your opinion, what were the major factors that contributed to the achievement or non-achievement of sustainability of the Project results?

Your comments and recommendations:

26. Please rate the extent to which the objectives of the Project are still valid.

Rate

Your comments and recommendations:

27. How can the Project be replicated in the UNECE region? In other regions?

Your comments and recommendations:

28. Did the Project apply gender and rights-based approaches in the following stages of its development? If you answered '**YES**', please provide examples below.

- a. Design of activities. **YES / NO**
- b. Implementation of activities. **YES / NO**
- c. Results of activities. **YES / NO**

Your comments and recommendations:

29. Did the UNECE advocate for gender equality in this area of work? **YES / NO**
If you answered '**YES**', please provide examples below.

Your comments and recommendations:

30. Did both women and men equally access the Project benefits as intended? **YES / NO**

Your comments and recommendations:

Is there anything else you would like to tell us?

Your comments and recommendations:

Please share your contact details if you would like to stay in touch:

THANK YOU!

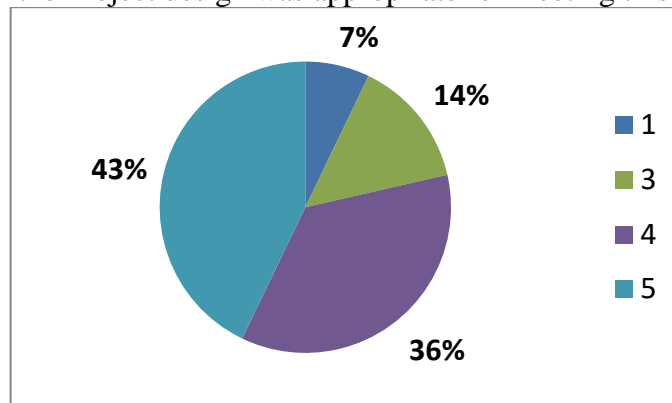
Annex 5. Survey results analysis

The survey respondents were asked to rate the following on a scale of 1 – 5 (from 1 – “poor” to 5 – “excellent”), or select “YES” or “NO”.

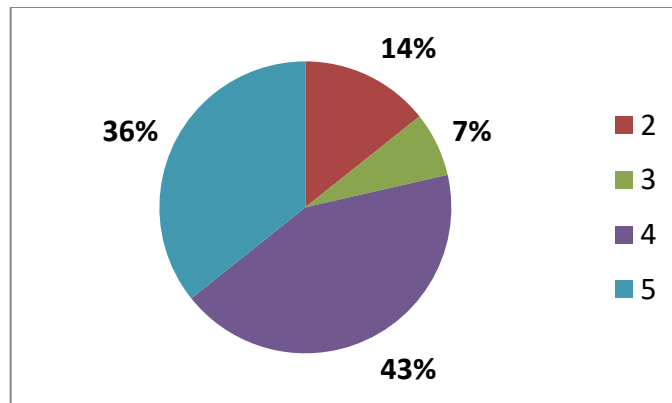
The “NA” mark means that the respondent did not provide a relevant answer to the question.

1. The objective of the Project is the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region. Please rate:

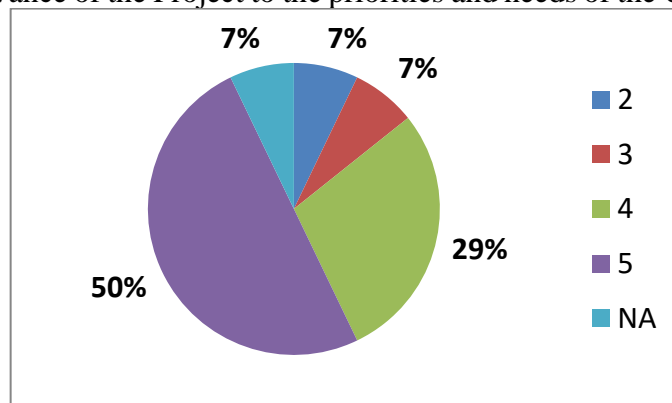
a. The extent to which the Project design was appropriate for meeting this objective.



b. The extent to which the Project implementation activities were appropriate for meeting this objective.

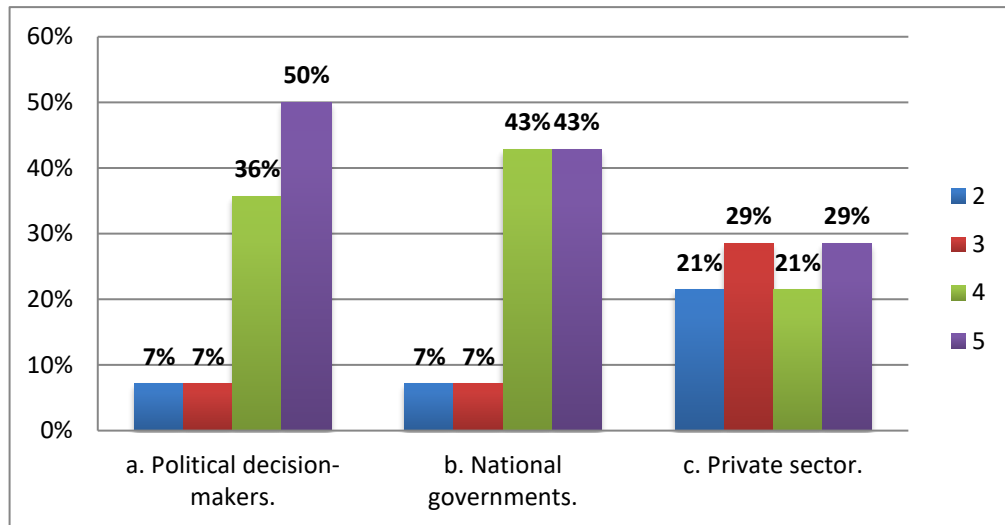


2. Please rate the relevance of the Project to the priorities and needs of the UNECE member States.

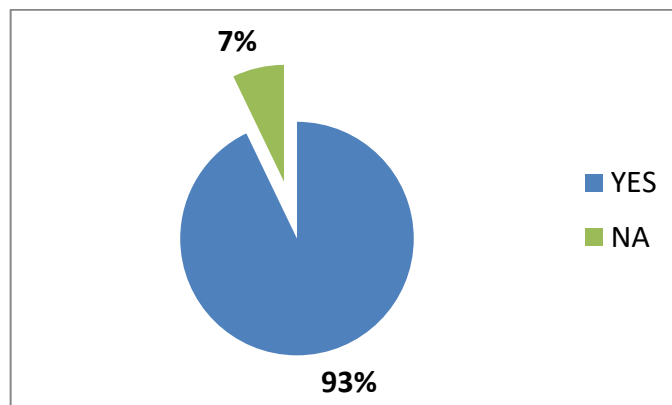


3. Please rate the relevance of the Project to the priorities and needs of the target group/beneficiaries:

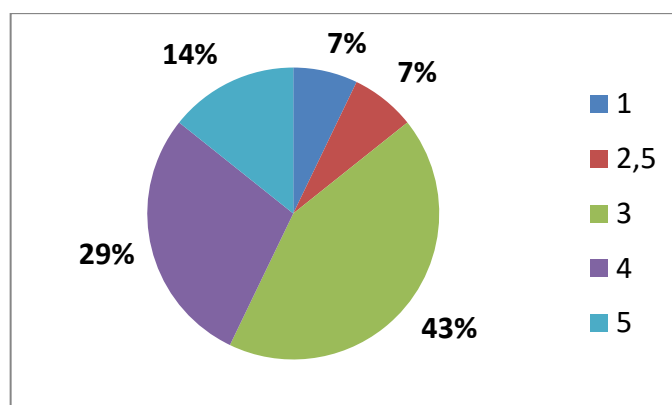
- a. Political decision-makers.
- b. National governments.
- c. Private sector.



4. Is the Project relevant to the broader work of the UNECE? YES / NO



5. Please rate the extent to which the Project objective - the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region – has been achieved.



Comments:

- The modelling phase did not have feedback from the main stakeholders nor the Group of Experts, so some of the assumptions were not taken into account, as for example the estimated supply of renewable or decarbonized gases. Although there are several “pathways”, there are not sensitivity analysis to allow a better view (for example, which are the most sensitive factors which have the biggest impact on the pathways?)

- Not nearly enough. No significant economy in the world has managed or is close to it. The world is still coming to grips with the challenge. Some would argue that it is now getting too late - the technologies available and the rate at which they can be deployed is inadequate and the rate of social change required is unrealistic. This is compounded if the existing COP 21 target (1.5C, no more than 2) becomes out of date and practically unachievable as the initial modelling has shown. I would recommend that the project is used to bring new ideas to the table and discussed – hence the proposal for new expert groups to advise policy options. Maybe even a major ‘man-to-the-moon style’ initiative to drive carbon removal, sustainable energy and net zero emissions.

- Given the broad scope of “sustainable energy” and the diversity of the UNECE region, the project has succeeded in exploring options to achieve sustainable energy. However, due to difficulties by member States to define sustainable energy, there is insufficient exploration of various pathways to achieve sustainable energy (as only one target KPI was agreed). There would be a strong benefit to enter into a second phase of the project, exploring further pathways and deepening the policy dialogue.

- Further work would be required to highlight a larger variety of strategies. For further work, national aspects in particular must be taken into account more intensively so that the outcome of the project also meets with acceptance.

- Substantial progress was made in achieving the overall project goals and objectives. However, more time and resources are needed to fulfill the project’s full potential.

- Baseline is established for future actions and projects.

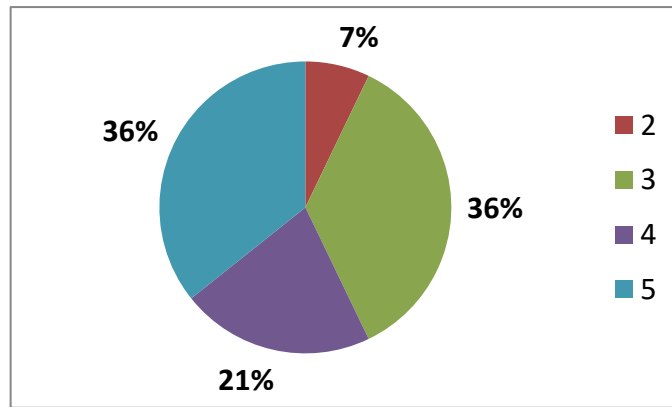
- This goal has been achieved at a high-level and could be further developed if a second phase is funded e.g. by looking in more detail at specific technologies and sub-regions of the UNECE.

- I found the analyses of emerging technologies lacking in important ways – what they may mean for energy systems moving forward. Further efforts are required in this direction in order to set the appropriate standards and agreements for the future.

- The tools for achieving the objectives are not perfect yet, or not universal, so they need to be refined

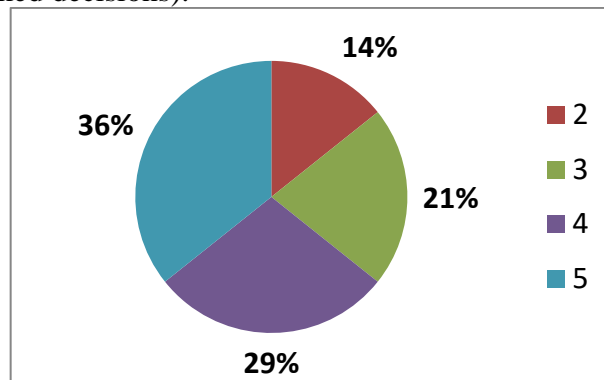
- The performance of the project must be verified by approved documents with relevant titles.

6. Please rate the extent to which the actual Project outputs are consistent with and relevant to the overall Project objective to increase the capacities of the ECE Member States to develop, implement and track national sustainable energy policies aligned with international agreements.

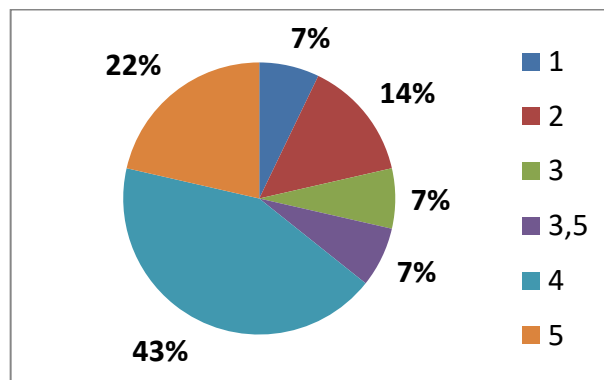


7. Please rate the extent to which the following Expected Accomplishments of the Project have been achieved:

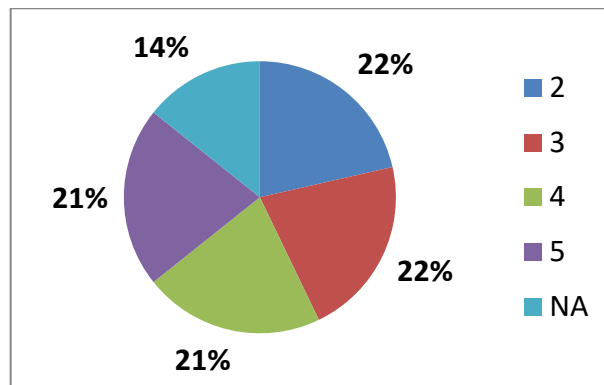
EA1: Enhanced understanding of the ECE Member States of alternative pathways for transitions to a sustainable energy future (related to development of various policy scenarios that enable the countries to make informed decisions).



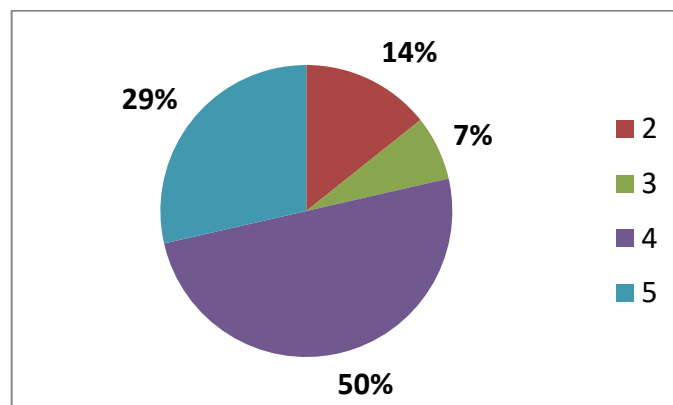
EA2: Enhanced knowledge of the ECE Member States to apply early-warning indicators and a mechanism to track implementation of international climate and sustainable development agreements.



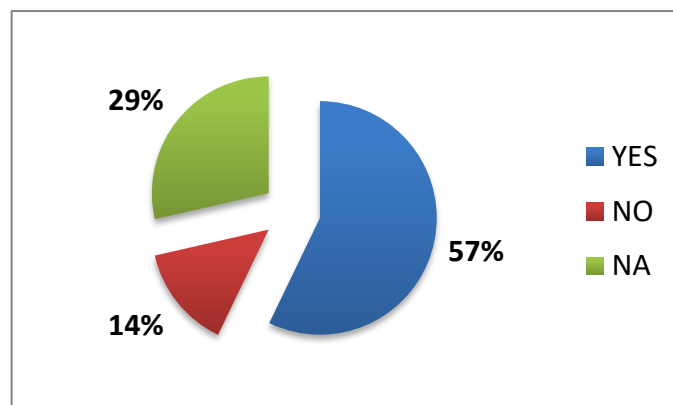
EA3: Increased capacities of national energy ministries to develop, implement and track national sustainable energy strategies.



8. Please rate the extent to which the actual Project outputs are consistent with and relevant to the Expected Accomplishments of the Project.



9. Have the Project activities strengthened the national capacity of the Member States to develop, implement and track national sustainable energy policies aligned with international agreements?
YES / NO



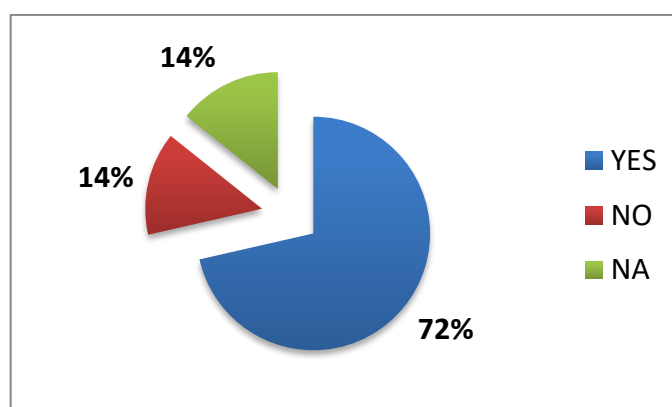
10. Please describe how the Project activities have strengthened the national capacity of the Member States to develop, implement and track national sustainable energy policies aligned with international agreements.

- It is too soon to determine the reach of these activities. The Group of Experts on Gas does not have the MS feedback.

- By providing access to an updated, more granular, enhanced integrated model giving more relevant results for member states.

- By involving member states with world experts in the field to understand both the potential and limitations of such modelling.
- Region specific technology roadmaps (aligned with international agreements) can act as a guideline for the individual countries in that region.
- It indicated the role of updating the NDC of the Paris Agreement in every country, to achieve the global objective.
- Activities have this potential, but I can't judge whether national capacities have been strengthened as I do not know enough about specific countries.
- The project is integrative in scope and allows therefore member states and the UNECE to focus their sectorial activities to more effectively contribute to reaching the SDGs.
- Data from the project were considered in the development of the Law on Alternative Energy Sources and Private-public Partnership in the Field of Energy.
- Participation of the Members States representatives in international forums, capacity building workshops (they included experience exchange), and dissemination by the UNECE of the analysis and research results in the form of circulars, brochures, magazines, and via websites of the organization.
- The project required advanced numerical simulations in order to produce relevant results.

11. Were there any challenges/obstacles in the process of the Project implementation? YES / NO
If you answered 'YES', please provide details below.



Comments:

- First, it has to be well explained and well known.
- There seems to be a lot of administrative burden in this project – especially linked to the provision of adequate resources.
- Realistically such projects are multi-year and require stable resources to manage them.
- A lack of long term resource to develop experience managing the intersection of energy, modelling and policy development inevitably cause delays.
- Also an efficient mechanism to attract private sector resources may prove useful. Consider funds to allow more frequent face to face debates and dissemination activities.

- Obtaining sufficient feedback from member states as to what they consider to be the most important aspect of sustainability. The “what is sustainability for region X” question thus remained opaque. In particular, little input was provided by the Member States on the three pillars of the project which form the basis of the modelling.

- The major obstacle is a continuous reliance and focus on fossil fuel and nuclear energy sources in the design of the project (incl. scenarios, policy recommendations, etc.). Those are not sustainable forms of energy. Renewable energy sources (wind, solar, bioenergy, geothermal and hydro) are sustainable forms of energy, but in the current project design they hardly play any role.

- Need more active participation in international meetings of national policy makers.

- Configuring the models to examine the scenarios and UNECE region was a time consuming process.

- The project took too long to get started.

- The project is vastly underfinanced, including with respect to staffing of the UNECE Secretariat and funding of consultants.

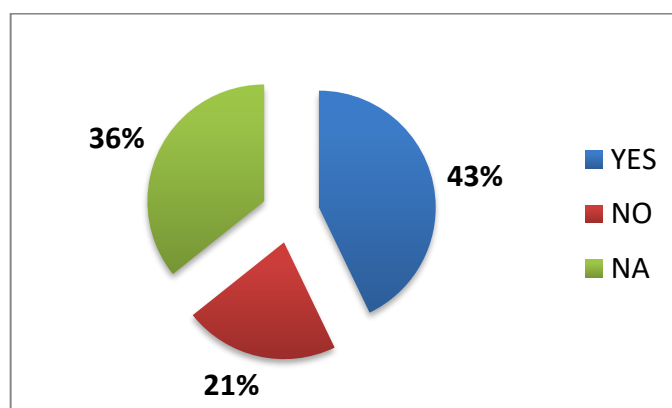
- There were challenges related to the absence of access to the information on and participation in the project implementation. The Scientific Research Institute of Energy and Economics at the State Committee of Industry, Energy and Subsoil Use of the Kyrgyz Republic (laboratory *Energy saving, energy efficiency and ecology*) is the only industry-specific state research institution the functions of which include implementation of energy saving and energy efficiency mechanisms, including energy surveys (*energy audits*). Since 2013, the *EEE* laboratory has been conducting R&D in energy surveying of large public sector organizations, development of strategic and state programmes on energy saving and energy efficiency.

- Challenges to get expert groups involved (succeeded in the end, but slow at the beginning).

- Difficulties in setting ambitious SE objectives (KPIs) across all member States.

- Very tight funding in terms of staffing (also due to the required project extensions due to above mentioned reasons).

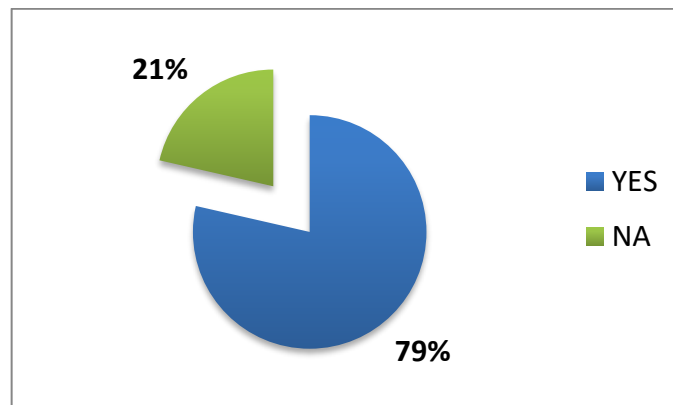
12. Were there any factors that prevented the actual achievement of the expected results? YES / NO If you answered ‘YES’, please provide details below.



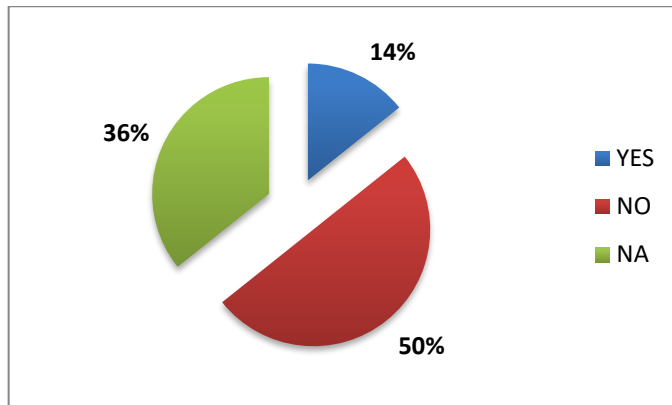
Comments:

- Policy recommendations to be acknowledged by MS. Assumptions for models used for pathways have some lack of inputs, as for example renewable gases
- To give a more comprehensive overview of alternative strategies further modelling work needs to be conducted and clearer targets (see Q11) would have to be defined.
- The project needed additional time and resources in order to fully realize its potential.
- The economic interests of fossil fuel and nuclear energy companies in combination with the political apparatus, which supports them, i.e. via corruption schemes, oligarchs, state monopolies, etc.
- It was not possible to organize Hard Talk on Renewable Energy in our country, due to limited resources. It was not a part of the project activities. However, for a country that plan to achieve 64% reduction of CO2 according to Paris agreement, it would help to have some support, including some open dialogue with participation of international experts. It is important to understand the wish and the possibility for a country to implement substantial change of energy systems.
- Some difficulty for non-modelling experts to understand the output of the models.
- The project has done very well, but the room for improvement is large in this complex space. It is not finished by any measure.
- Bureaucratic obstacles and lack of information.
- Hard to say as I have not been informed about the results of the project

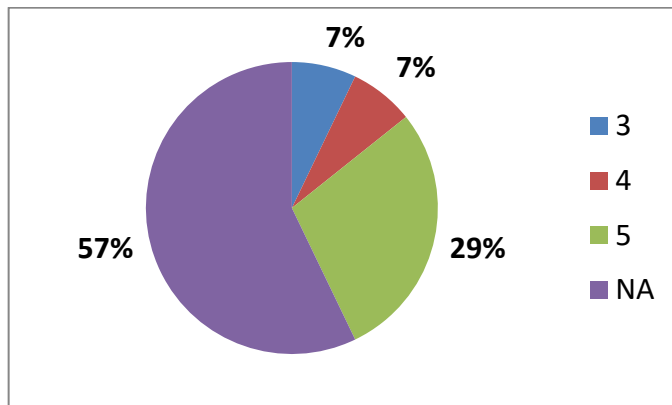
13. Were the Project results achieved on time? YES / NO



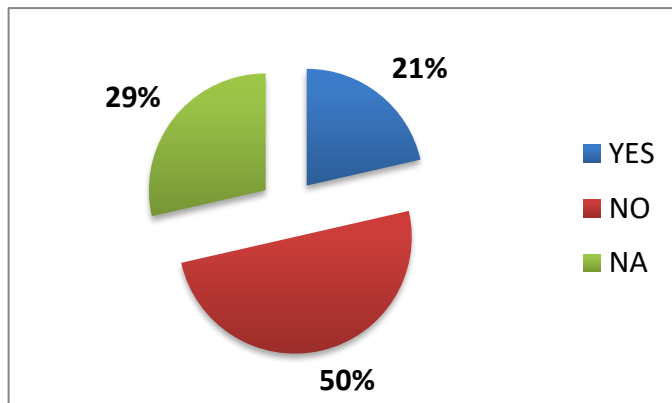
14. Were the resources allocated to the Project sufficient for achieving the expected results? YES/ NO



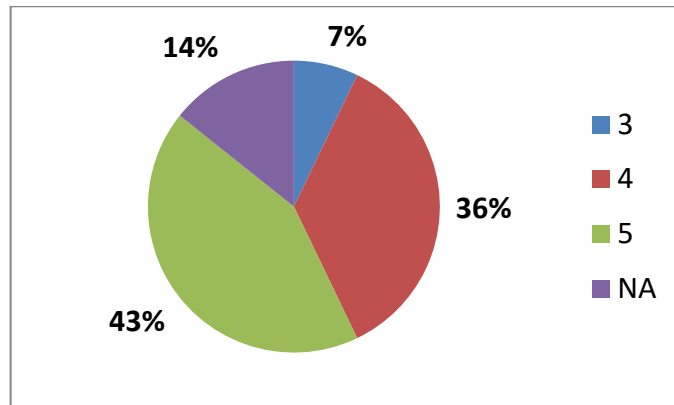
15. How economically were the Project resources used? Please provide your rating.



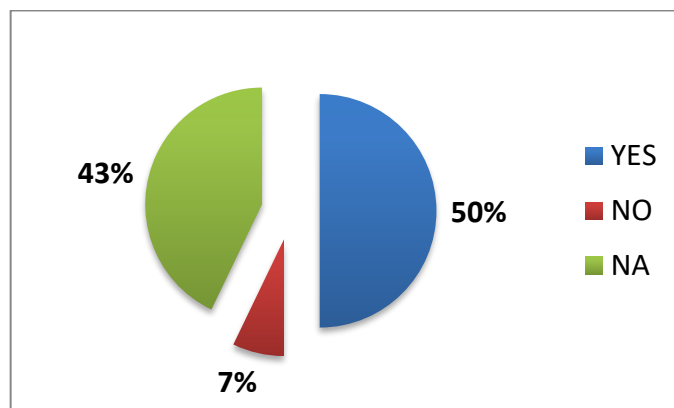
16. In your opinion, could the use of the Project resources be improved while achieving the same results? YES / NO If you answered 'YES', please provide details on how it could be improved.



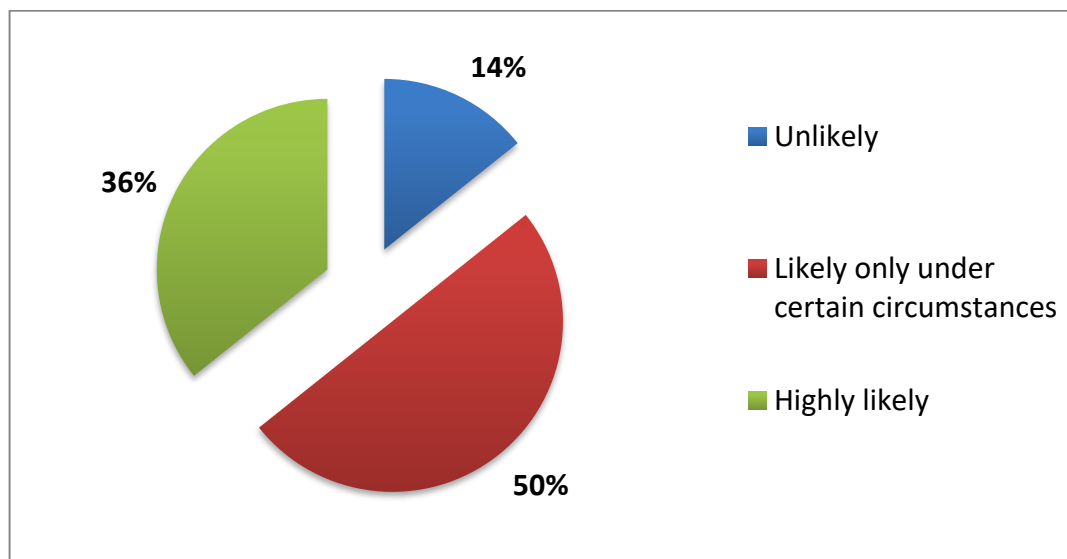
17. How efficiently were the Project activities organized? Please provide your rating.



18. Was the Project implemented in the most efficient way compared to alternatives? YES / NO
 How do the costs and use of resources compare with other similar projects (within the UNECE, other regional commissions, other UN agencies, or other organizations and initiatives)?



19. How likely are the ECE and Member States to benefit from this Project after its completion?
 Please select.

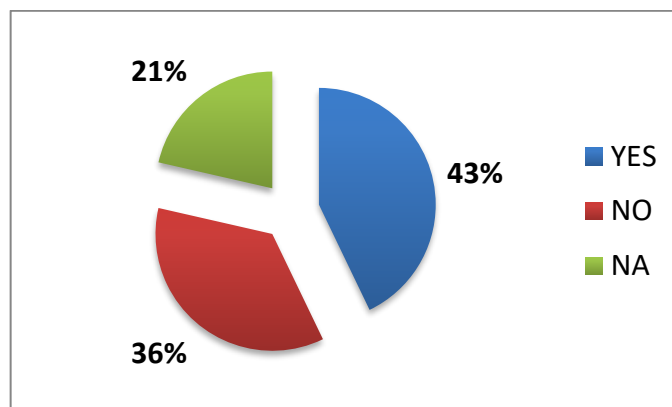


Specified circumstances:

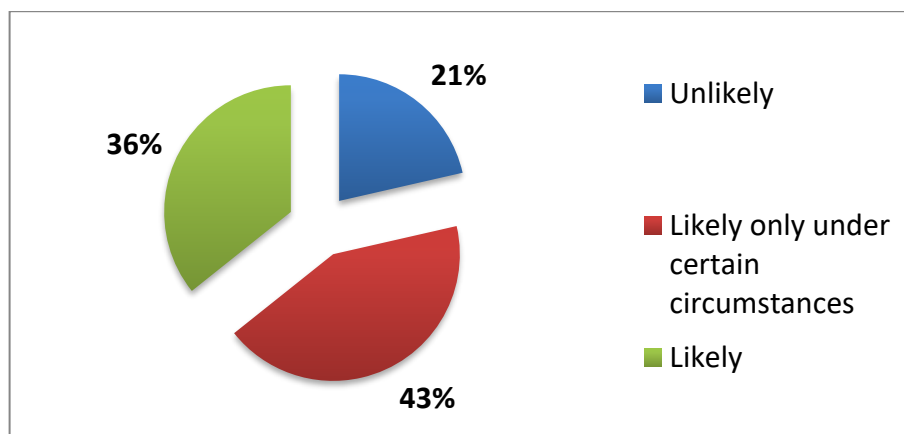
- If they agree to collaborate

- Smaller Member States with smaller capacities will certainly benefit more from the results than the larger Member States, which already have large modelling capacities.
- Likely, only if the project design is changed towards focus on 100% renewable energy scenarios. The current project design, largely focusing on unsustainable energy forms (fossil fuel and nuclear) does not benefit the ECE.
- Especially if more detailed analysis is carried out in a phase 2.
- Adaptation and implementation tailored to circumstances in individual states.
- Better planning and transparency.
- Phase II.

20. After the Project completion, would it be overburdening for the recipient countries and stakeholders to continue the benefits of the Project with no external support? YES / NO



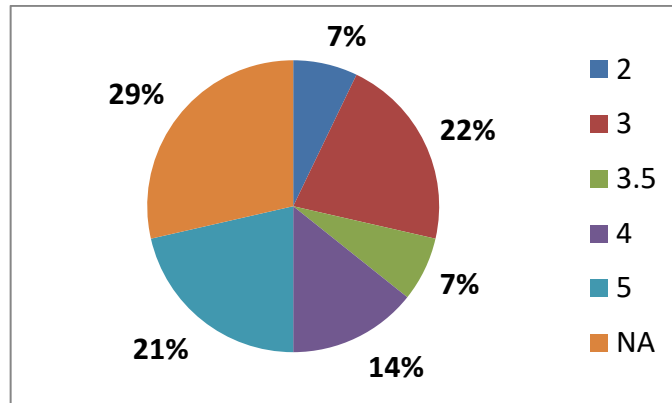
21. How is the stakeholder engagement likely to continue, be scaled up, replicated or institutionalized after the completion of the Project?



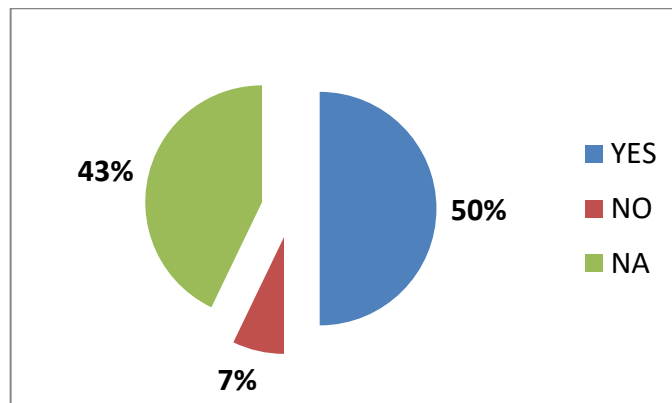
Specified circumstances:

- This is a first attempt to long term modelling, but the cooperation of official organisms (as for example the IAE) is needed. Many MS could use a bit or a lot of the project outputs.
- If they agree to collaborate
- Likely if, for example, the proposed early-warning-system is further defined and implementable.
- Particularly if sub-regional deep dives are implemented
- The project would highly benefit from a second phase as strategies and options that were developed are useful, but the regional dialogue and further exploration of pathways and their tracking would require additional support (not yet institutionalized)

22. Please rate the extent to which the partners and beneficiaries ‘own’ the outcomes of the work.



23. Did the Project design and implementation activities incorporate building up the resilience to future risks? YES / NO



24. What features/activities were incorporated in the Project design and implementation activities to build up the resilience to future risks?

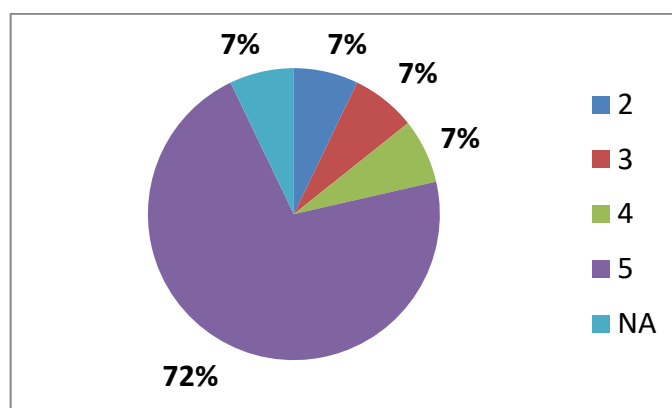
- A more realistic picture of the future requirements around sustainable energy has been developed.
- My recommendation is that more work could be done on the consequences of climate change – hence the additional expert group – to help member states plan more resilient and adaptive strategies.
- The project did not substantially raise awareness on the massive damage and consequences of the global warming. Therefore it did not substantially build up resilience to future risks.
- New knowledge and tools developed by international experts.
- Modelling frameworks can examine these future risks.
- Resilience will be built by decisions taken on the basis of the study. The pathways approach as opposed to conventional scenario approaches or straight predictions does facilitate the assessment of uncertainties and their consequences in the form of opportunities and risks as well as the options to capture the opportunities and mitigate the risks.
- Faster transition to a sustainable energy system.
- Faster implementation of sustainable energy sources.
- Increasing energy efficiency of industry and buildings.
- Ensuring understanding of the role of natural gas and recognizing the value of coal-mine methane.

- Decreasing the impact of the fossil fuel based power generation on the environment due to implementation of highly efficient technologies with a low level of emissions, and to capturing, processing, and storing carbon
- Developing international cooperation on the above-listed issues.
- The project was designed from the start to help participating countries to build capability and resilience.

25. In your opinion, what were the major factors that contributed to the achievement or non-achievement of sustainability of the Project results?

- Updating the integrated climate change model for future use.
- Providing experience by participation of members states in the modelling process.
- Strong stakeholder involvement: Not just doing modeling in a black box, but organizing stakeholder workshops and seeking inputs for modeling assumptions over the whole project duration. With this it was possible to increase the ownership of results and herewith the acceptance and sustainability of the project.
- If the project remains at the current stage, the results may not be particularly sustainable because too little attention has been paid to national objectives and circumstances.
- The project participants were well chosen so as to have the required skills and capabilities needed for a successful project.
- Project Management was of a high quality; as result all activities were done in a sustainable way.
- Engagement from countries.
- Constraints imposed on the UNECE staff and contributors.
- Financing.
- Analysis and research results, work of the experts, organizational issues, financing.
- It is hard to say because of the lack of information; I was not invited to join the project

26. Please rate the extent to which the objectives of the Project are still valid.



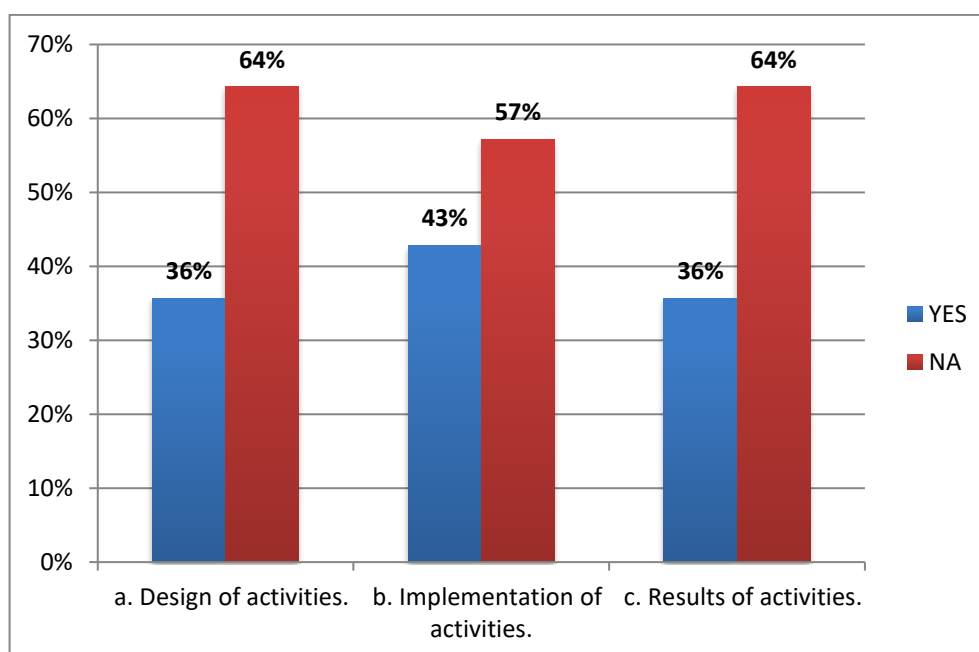
27. How can the Project be replicated in the UNECE region? In other regions?

- Replication is valid, but it should be adapted to developing countries.
- The project is directly applicable to the other regions who would also benefit from an update model and would help in future international energy debates.
- In the current form the project cannot be replicated. A new project edition, focused on 100% renewable energy, can and should be replicated.
- By supporting national experts to promote results at national level.
- For UNECE – more detailed analysis, building on initial results.

- Individual countries can take inspiration from the study, but should address their proper issues, not strive to replicate blindly. The same applies to the four other regional commissions. They should work in concert with UNECE as the primary issues are global and not regional.
- For Uzbekistan and Central Asia, the implementation of the project will give tangible results.
- In similar post-soviet.
- Active overall implementation of the policy, state support, relevant legislative framework, energy sources price liberalization and corresponding tax policy.
- Phase II could offer further insights and deep dives into sub-regions. Other regional commissions have interest in the project. It is highly replicable across other world regions, as the modeling can be applied to other countries and regions.
- The methods and approaches used in this study could be applied broadly in many regions.

28. Did the Project apply gender and rights-based approaches in the following stages of its development? If you answered 'YES', please provide examples below.

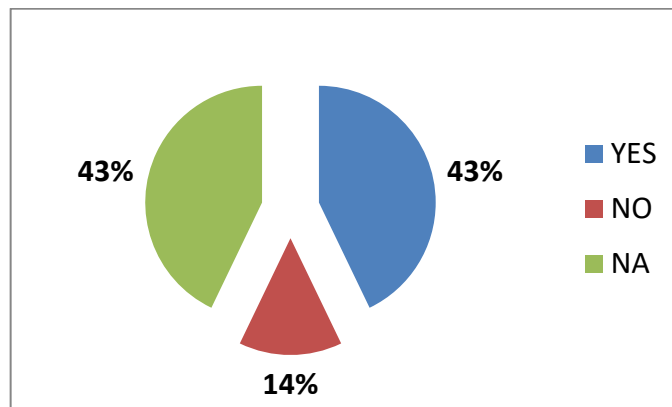
- Design of activities. YES / NO
- Implementation of activities. YES / NO
- Results of activities. YES / NO



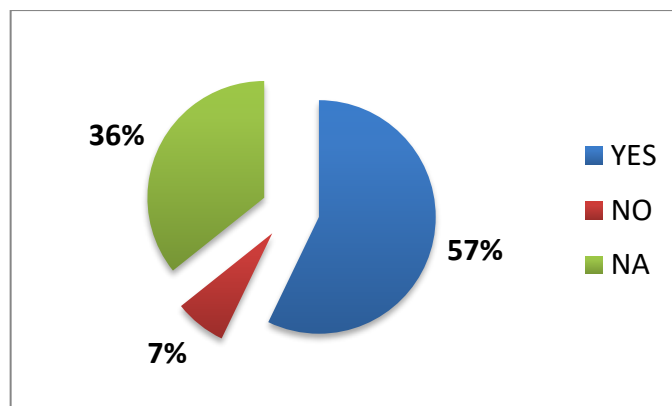
Comments:

- It was a majority female UNECE team.
- Gender aspects (gender equality) were incorporated when planning and implementing activities (aiming for equal participation of all genders). Women empowerment was supported by strengthening key female stakeholders (advisory boards, speakers, etc.). results are equally relevant for all genders.
- The project had nothing to do with gender equality and therefore no attention was paid to it (content wise). All in all, however, the sexes were treated completely equally and from our point of view there was no discrimination in any of the aforementioned mentioned stages (a to c).
- Yes, gender was not an issue in the project.
- GHG emissions violate a universal human right to health and clean air. Therefore, rights-based approach needs to be more in focus.
- At all stages gender mainstreaming was used.

29. Did the UNECE advocate for gender equality in this area of work? YES / NO
If you answered 'YES', please provide examples below.



30. Did both women and men equally access the Project benefits as intended? YES / NO



Is there anything else you would like to tell us?

- Not only UNECE, but the entire world needs to set the target of 100% renewable energy before 2050 in order to reach sustainable energy and to tackle climate change. In order to support UNECE member states in policy and capacity building, 100% renewable energy scenarios and stakeholder-engagement is needed. Energy Watch Group is open for further exchange and cooperation in this regard. We highly recommend to see the results of our recent study, which proves that the global transition to 100% renewable energy across all energy sectors is feasible before 2050 and would be cost-efficient than the current energy system: <http://energywatchgroup.org/new-study-global-energy-system-based-100-renewable-energy>

- We have to give a clear message to all stakeholders at national level that the change will cost, and these costs need to be planned now, even if the investment will be in the future. The role of Early Warning System need to be stated for each country. So, we need to keep communication at national level, with more detailed analyses at sub-regional level.

- Excellent questionnaire. Thanks to all participants of this event.

Annex 6. List of reviewed documents

Project documents

- Confirmation of the Project extension. Letter. Russian Federation Permanent Mission to the UN. 8 April 2018.
- Detailed Review of Activity Implementation (Intermediary Assessment). Pathways to Sustainable Energy Project. Period covered: October 2016 to June 2018. CSE-27/2017/INF.8.
- Funds Utilization Report. Russian Contribution to the Strengthening capacity of the ECE member states to achieve the energy-related Sustainable Development Goals ("Pathways to Sustainable Energy") (Project 10 No: E274). M1-32ECE:000117. As of 31 December 2018 (Provisional). UNECE.
- Glossary. Pathways to Sustainable Energy Project. Version: 20 August 2018. CSE-27 2018_INF.10.
- Glossary. Pathways to Sustainable Energy Project. Version: 23 May 2018.
- List of contacts (xls) provided by the UNECE Officer.
- Pathways to Sustainable Energy. Note by the Secretariat. ECE/ENERGY/2016/7. Economic Commission for Europe. Committee on Sustainable Energy. Twenty-fifth session, Geneva, 26-30 September 2016. Distr.: General. 19 July 2016.
- Project Proposal to be Funded by the Russian Federation. Letter from the Permanent Mission of the Russian Federation to the UN in Geneva to PMU Director UNECE. 9 September 2016.
- Request for cost-neutral Project extension until 30 September 2019. Letter. UNECE Sustainable Energy Division. 23 March 2018.
- Review of Activity Implementation (Draft Final Assessment). Pathways to Sustainable Energy Project. Period covered: October 2016 to August 2019. CSE-28/2019/INF.8
- Status Report. Pathways to Sustainable Energy. Note by the Secretariat. ECE/ENERGY/2018/1. Economic Commission for Europe. Committee on Sustainable Energy. Twenty-seventh session. Geneva, 26–27 September 2018. Distr.: General. 17 July 2018.
- White Paper. High-Level Panel: Pathways to Sustainable Energy. CSE-24/2015/INF.7. Version 13 November 2015. Twernty-fourth Session of the Committee on Sustainable Energy, 18-20 November 2015.

Meeting and Event documents

Pathways to Sustainable Energy: National approaches to a global challenge, Baku, Azerbaijan, 21 October 2016

Documents

- Central Asia Regional Consultation Meeting (in the framework of the Third session of the Group of Experts on Renewable Energy), 20 October 2016.
- Concept note and draft outcome document of the Eighth International Forum on Energy for Sustainable Development and Energy Ministerial ECE/ENERGY/2016/9.
- Concept Note of the Seventh International Forum on Energy for Sustainable Development, Baku, Azerbaijan, 18-21 October 2016.
- Concept Note. Seventh International Forum on Energy for Sustainable Development. The role of SEA in renewable energy development.
- Draft outcome document of the Seventh International Forum on Energy for Sustainable Development ECE/ENERGY/2016/8.

- Experience in the Europe & CIS Region with Clean Energy -UNDP, GEF and UNECE, October 2016.
- Joint Statement of the Executive Secretaries of the United Nations Regional Commissions for the 5th International Forum on Energy for Sustainable Development.
- Pathways to Sustainable Energy: National approaches to a global challenge, 21 October 2016.
- Provisional Agenda of the Seventh International Forum on Energy for Sustainable Development, Baku, Azerbaijan, 18-21 October 2016.
- Regional seminar on: «Enabling Policies to Promote Financing Renewable energy Investments», 19-20 October 2016, in the framework of the Seventh International Forum on Energy for Sustainable Development International Conference on Renewable Energy (18-21 October, 2016) in Baku, Azerbaijan. Information Note.
- Regional seminar on: «Enabling Policies to Promote Financing Renewable energy Investments», 19-20 October 2016, in the framework of the Seventh International Forum on Energy for Sustainable Development International Conference on Renewable Energy (18-21 October, 2016) in Baku, Azerbaijan. Draft Agenda.
- Statement of Common Action to initiate implementation of the provisions of the Hammamet Declaration for adoption at the 6th International Forum on Energy for Sustainable Development Yerevan, Armenia, 29 September – 2 October 2015.
- Sub-Session: The role of Strategic Environmental Assessment in renewable energy planning. Agenda. Seventh International Forum on Energy for Sustainable Development, 21 October 2016.
- The Interplay between Renewable Energy and Fossil Fuels: the Post-Paris agenda (in the framework of the Third session of the Group of Experts on Renewable Energy), 21 October 2016.
- Twentieth session of the SPECA Thematic Working Group on Water, Energy and Environment, 20 October 2016. Preliminary Programme.
- Workshop Global Energy Efficiency Accelerator Platform and Progress in Accelerating Industrial Energy Efficiency (in the framework of the 3rd session of the Group of Experts on Energy Efficiency), 19 October 2016.
- Workshop on the Role of Strategic Environmental Assessment (SEA) in Renewable Energy Planning (UNECE) (in the framework of the Third session of the Group of Experts on Renewable Energy), 21 October 2016.
- Workshop Promoting Energy Efficiency in Azerbaijan and Other Countries of the Region (in the framework of the 3rd session of the Group of Experts on Energy Efficiency) 19 October 2016.

Documents of the 3rd Session of the Group of Experts on Energy Efficiency, Baku, Azerbaijan, 18-19 October 2016.

- Annotated Provisional Agenda for the third Session of the Group of Experts on Energy Efficiency ECE/ENERGY/GE.6/2016/1, 18 - 19 October 2016.
- 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 ECE/ENERGY/100.
- Best practices in selected economic sectors to improve energy efficiency ECE/ENERGY/GE.6/2016/4.
- Concept note and draft outcome document of the Eighth International Forum on Energy for Sustainable Development and Energy Ministerial ECE/ENERGY/2016/9.
- Concept Note of the Seventh International Forum on Energy for Sustainable Development ECE/ENERGY/GE.6/2016/3-ECE/ENERGY/GE.7/2016/3.

- Draft Conclusions and Recommendations of the Third Session of the Group of Experts on Energy Efficiency GEEE/GE.6/2016/INF.1.
- Draft outcome document of the Seventh International Forum on Energy for Sustainable Development ECE/ENERGY/2016/8.
- Energy Efficiency standards in buildings ECE/ENERGY/GE.6/2016/5.
- Regulatory and policy dialogue addressing barriers to improve energy efficiency ECE/ENERGY/GE.6/2016/6.
- Report of the Group of Experts on Energy Efficiency on its third session ECE/ENERGY/GE.6/2016/2, 18 - 19 October 2016.
- Role of utilities and energy service companies in improving energy efficiency ECE/ENERGY/GE.6/2016/7.

Documents of the 3rd Session Group of Experts on Renewable Energy, Baku, Azerbaijan, 20-21 October 2016.

- Annotated Provisional Agenda for the third Session of the Group of Experts on Renewable Energy ECE/ENERGY/GE.7/2016/1, 20–21 October 2016.
- Concept Note of the Seventh International Forum on Energy for Sustainable Development ECE/ENERGY/GE.6/2016/3-ECE/ENERGY/GE.7/2016/3.
- Good practices and policies for intersectoral synergies to deploy renewable energy: the water-energy-food-ecosystems nexus approach to support the Sustainable Development Goals (SDGs) ECE/ENERGY/GE.7/2016/6.
- Key drivers for renewable energy within future energy systems- case studies ECE/ENERGY/GE.7/2016/5.
- Report of the Third Session of the Group of Experts on Renewable Energy ECE/ENERGY/GE.7/2016/2, 20-21 October 2016.
- Reviewing the state of renewable energy development: key findings, barriers and options ECE/ENERGY/GE.7/2016/4.

Presentations from the 3rd Session of the Group of Experts on Energy Efficiency, Baku, Azerbaijan, 18-19 October 2016.

- Armenia - Energy Efficiency in Building Sector. Diana Harutyunyan, UNDP Climate Change Projects Coordinator, Mr. Vahram Jalalyan, UNDP-GEF “Improving Energy Efficiency in Buildings” Project Manager, Armenia.
- Best practices (and rising stars) to improve energy efficiency (Lessons learned and to be learned in Germany). Christian Noll, Managing Director, DENEFF (German Industry Initiative for Energy Efficiency).
- Building codes & standards: setting the scene. Ksenia Petrichenko, Copenhagen Centre on Energy Efficiency.
- Buildings sector: Energy Productivity in the GCC. Kankana Dubey, Research Fellow, KAPSARC.
- Criteria for new buildings and energetic modernisation. Christian Noll, Managing Director, DENEFF.
- Despite the multiple benefits, improving energy efficiency remains elusive.... Robert Tromop, Managing Director, Efficient Energy International Limited, New Zealand.
- Enabling Policies to Support Industrial Energy Productivity in the GCC. Padu S. Padmanabhan, Visiting Researcher, KAPSARC.
- Energy Challenges and Opportunities in Transition Countries. John O’Brien, Regional Technical Advisor on Climate Change Mitigation, UNDP Istanbul Regional Hub.

- Energy Efficiency and Renewable Energy: Status, Opportunities and Perspectives in Ukraine. Kostiantyn Gura, Acting Director of Green Investment Development Center, State Agency on Energy Efficiency and Energy Saving of Ukraine.
- Energy Efficiency in European Industry. Zlatko Pavicic, Independent Consultant, Croatia.
- Energy Efficiency Standards in Buildings. Basis for a Holistic Approach. Case of the Arab Region. Mongi Bida, First Economic Affairs Officer, UN ESCWA.
- Energy Efficiency: the Key for Sustainable Development of Ukraine.
- Energy Management Systems Solving the Technology + People + Data Equation. William Mc Laughlin, International Lead EnMS Expert, UNIDO.
- Energy performance contracting in public buildings sector. Matija Vajdić, Senior Engineer, Department for Renewable Energy Sources and Energy Efficiency, Energy Institute Hrvoje Pozar, Croatia.
- EnMS implementation in refractories manufacturing. Experience of Vardar Dolomit. Zlatko Gjurchinoski, Energy Manager, Vardar Dolomit, the former Yugoslav Republic of Macedonia.
- ESCO Moldova – Transforming the market for Urban Energy Efficiency by introducing Energy Service Companies (ESCO Moldova). Nicolae Zaharia, Project Manager, ESCO, UNDP Republic of Moldova.
- Financing Energy Productivity. Steven Fawkes, KAPSARC, Visiting Fellow, Energy Productivity Project, EnergyPro.
- GEF Investment in Energy Efficiency: Experience in ECA and Looking Forward. Ming Yang, Senior Climate Change Specialist, GEF Secretariat.
- Impacts of energy efficiency programs operated by Swiss utilities and implications for other countries. Alisa Yushchenko, Researcher, University of Geneva.
- Implementation of EE projects in Republic of Serbia. Antonela Solujic, Head, Department for Energy Efficiency, Ministry of Mining and Energy, Serbia.
- Improving energy efficiency in industry (IEEI) project in Turkey. Kubilay Kavak, Project Manager, UNDP UNIDO Industrial Energy Efficiency Project, Turkey.
- Improving Energy Efficiency in Low-Income Households and Communities in Romania. Andreea Ihos, Regional Programme Support Consultant, Romania.
- Increasing Investor Confidence Through Energy Efficiency Standards Panama Bartholomy Director, Investor Confidence Program Europe.
- Investor Ready Energy Efficiency. Panama Bartholomy, Investor Confidence Project Europe.
- Overcoming barriers to investing in energy efficiency – a policy analysis. Oleg Dzioubinski, Energy Efficiency Programme Manager, UNECE.
- Policies and Global Uptake of EnMS: Opportunities and Challenges. Marco Matteini, UNIDO Industrial Energy Efficiency Division.
- Policy Maker Meets the Engineer: Gaps, Challenges and Ways to Overcome Them. Hannes Mac Nulty, Development Manager, BG Ingenieur Conseils, Switzerland.
- Policy Maker meets the Engineer: gaps, challenges and ways to overcome them. Hannes Mac Nulty, Development Manager, BG Ingenieur Conseils, Switzerland.
- Promoting Energy Efficiency in Azerbaijan and Other Countries of the Region. Nazim Mammadov, Project Manager, NAMAs for low-carbon end-use sectors in Azerbaijan.
- Promoting Energy Efficiency in Kazakhstan. Irina Goryunova, Assistant Resident Representative, UNDP Office in Kazakhstan.
- Removing Barriers to increase investment in Energy Efficiency in Public Buildings in Ukraine through the ESCO modality in Small and Medium Sized Cities. Sergei Volkov, UNDP GEF Energy Efficiency Public Buildings Project in Ukraine.

- Results of the EU/UNDP Project ‘Developing an Integrated Approach to a Stepped-Up Energy Saving Programme’. Andrei Miniankou, Head of Section, Department for Energy Efficiency of the State Committee on Standardization, Belarus.
- Specific Programs and Policies to Promote Energy Efficiency in Georgia. Natalia Jamburia, Chief Specialist, Ministry of Energy, Georgia.
- Sustainable Energy for All. Global Industrial Energy Efficiency Accelerator (GIEEA). Al Karim Govindji, Carbon Trust.
- Sustainable Energy for All. Knowledge Hub Readiness for Investment in Sustainable Energy; Global Tracking Framework. Alejandro Moreno, Energy Specialist, The World Bank.
- The Case for Energy Productivity In the GCC. Nicholas Howarth, Research Fellow, KAPSARC.
- The Global Energy Efficiency Accelerator Platform: Overview of Progress. Tim Farrell, Ksenia Petrichenko, Copenhagen Centre on Energy Efficiency.
- Transforming the Market for Efficient Lighting. Project UNDP-GEF/Ministry of Energy RF. Vitaly Bekker, UNDP Russian Federation, UNDP GEF Project Manager Energy Efficiency Buildings.
- Unleashing efficiency potentials through understanding the demand side. Stefan Buettner, Head of International Affairs & Strategy, Institute for Energy Efficiency in Production, University of Stuttgart.
- Unlocking energy efficiency’s potential. Tyler Bryant, Policy Analyst, Energy Efficiency Division, IEA.
- What do we need to succeed? Energy efficiency. Zoe Lagarde, G20 Adviser and Project Manager, IPEEC.

Presentations from the 3rd Session Group of Experts on Renewable Energy, Baku, Azerbaijan, 20-21 October 2016.

- An Overview of IRENA Tools and Facilitation Support. Gurbuz Gonul, IRENA.
- Application of UNFC to Renewable Energy. Frank Denelle, Vice-President Reserves, Shell.
- Best data for good decision making. Martin Hullin, Project Manager, Renewable Energy Policy Network for the 21st Century (REN21).
- Boosting renewable energy investment in East. Europe, Caucasus & Central Asia. Katarina Uherova Hasbani, Revelle Group.
- Cost-Effective Renewable Energy Potential in South East Europe. Gurbuz Gonul, Senior Programme Officer, International Renewable Energy Agency (IRENA).
- Developing a Renewable Resources Reporting Methodology – Why, How, Who? Scott Foster, Director, Sustainable Energy Division, UNECE.
- Integrating Renewable Energy and Energy Efficiency. Tyler Bryant, Project Manager, Energy Efficiency Division, International Energy Agency (IEA).
- Main results of the study: “Status and Perspectives for Renewable Energy Development in the UNECE Region. Oliver Frank, Head of Division, Renewable Energy and Energy-Efficient Mobility, Dena (German Energy Agency).
- Monitoring of the Renewable Energy Sources in Azerbaijan. Rasim Mamedov, Azalternativerji LLC.
- Opportunities and Challenges for the Development of Renewable Energy in Central Asia: The UNECE Renewable Energy Status Report. Martin Hullin, REN21.
- Opportunities and challenges for the development of the renewable energy in Azerbaijan. Jamil Malikov, Azerbaijan.
- Renewable energies and identifying intersectoral opportunities in the water-food-energyecosystems nexus. Annukka Lipponen, Environmental Affairs Officer, Environment Division, UNECE.

- Renewable Energy status in Russian wholesale market of power(capacity). Georgy Ermolenko, Head of the Center for the Development of Renewable Energy, Energy Institute, Moscow Higher School of Economics.
- Renewable integration Distribution Automation Systems. Jovita Lauciute, Market Manager, Power Systems Network Management, ABB.
- Renewables 2016. Global Status Report. Martin Hullin, Project Manager, Renewable Energy Policy Network for the 21st Century (REN21).
- Roadmap for a renewable energy future. Gurbuz Gonul, Senior Programme Officer, International Renewable Energy Agency (IRENA).
- SEA for RES projects: EBRD experience. Olena Borysova, EBRD.
- SEA in hydro and wind-power development examples from South-East Europe. Marta Marta Brkić, Managing Director, Dvokut ECRO d.o.o, Croatia
- SEA of the National Strategy on the Use of Alternative and Renewable Energy Sources in Azerbaijan for the years 2015 – 2020. Aysel Babayeva, Ministry of Ecology and Natural Resources of Azerbaijan.
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Annex 7. List of surveyed and interviewed participants

List of surveyed participants

1. Abdurasylova, Nurzat, Founder & CEO, Unison Group, Kyrgyzstan (member of Project Advisory Board)
2. De la Flor García, Francisco Pablo, Director for International Organizations, Enagas, Spain (Chair, Group of Experts on Gas)
3. James Edmonds, Analyst, Pacific North National Laboratory (PNNL), US Department of Energy, USA
4. Heiberg, Sigurd, Project Director, International Programme for Petroleum Management and Administration, PETRAD (member of Project Advisory Board)
5. Hicks, Denis, Leading Research Officer, UK (member of Project Advisory Board)
6. Kasymova, Gulsara, Head "Laboratory of energy-saving and ecology", Scientific Research Institute of Energy and Economics at the State Committee of Industry, Energy and Subsoil Use of the Kyrgyz Republic (SRIIE at the SCIES KR), Kyrgyzstan (participant of the "Pathways" workshop in Bishkek, 12-14 June 2018)
7. Nils Kemen, Analyst, Fraunhofer UMSICHT, Germany
8. Nabiyeva, Komila, Senior Advisor, Energy Watch Group, Germany (on behalf of Mr. Hans Josef Fell, President and MP, Energy Watch Group and German Parliament, participant of the "Pathways" workshop in Kyiv, Ukraine, 14 November 2018)
9. Rakhmanov, Nizomiddin, Staff Member of Chair Thermal Power Engineering, Power Engineering faculty, Tashkent State Technical University, Uzbekistan (national representative)
10. Robu, Sergiy, Director, Energoplan srl, Republic of Moldova (expert, national representative)
11. Taylor, Peter, Professor of Sustainable Energy Systems, University of Leeds, UK (member of Project Advisory Board)
12. Temirbekov, Alexander, Climate Change, Environment and Sustainable Development Consultant, Independent consultant, Kyrgyzstan (participant of the "Pathways" workshop in Bishkek, 12-14 June 2018)
13. Tinschert, Lisa, Advisor Renewable Energy, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (member of Project Advisory Board)
14. Zakhidov, Romen, Director (head) of Institute of Energy, Uzbek Academy of Sciences, Uzbekistan (participant of the "Pathways" workshop in Bishkek, 12-14 June 2018)

List of interviewed participants

1. Abdurasylova, Nurzat, Founder & CEO, Unison Group, Kyrgyzstan (member of Project Advisory Board)
2. Arabidze, Margalita, Deputy Head of Energy Policy Department, Ministry of Economy and Sustainable Development of Georgia (national representative)
3. Baron, Yury, Advisor to the General Director, Russia Energy Agency (representative of the Russian Federation donor)
4. Bigot, Lea, Policy Advisor, German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (representative of the German donor)
5. Brkic, Iva, Economic Affairs Officer, Sustainable Energy Division, UNECE
6. De la Flor García, Francisco Pablo, Director for International Organizations, Enagas, Spain (Chair, Group of Experts on Gas)
7. De Strasser, Lucia, Consultant for Environmental Affairs, Environment Division, UNECE
8. Dodds, Felix, Senior Fellow at the Global Research Institute University of North Carolina, USA (member of Project Advisory Board)
9. Dzioubinski, Oleg, Regional Adviser, Sustainable Energy Division, UNECE

10. Edmonds, James, Analyst, Pacific North National Laboratory (PNNL), US Department of Energy, USA (modeller team expert)
11. Foster, Scott, Director, Sustainable Energy Division, UNECE
12. Heiberg, Sigurd, Project Director, International Programme for Petroleum Management and Administration, PETRAD (member of Project Advisory Board)
13. Held, Stefanie, Senior Economic Affairs Officer, Secretary of the Committee on Sustainable Energy, Sustainable Energy Division, UNECE
14. Hicks, Denis, Leading Research Officer, UK (member of Project Advisory Board)
15. Kasymova, Gulsara, Head "Laboratory of energy-saving and ecology", Scientific Research Institute of Energy and Economics at the State Committee of Industry, Energy and Subsoil Use of the Kyrgyz Republic (SRIIE at the SCIES KR), Kyrgyzstan (participant of the "Pathways" workshop in Bishkek, 12-14 June 2018)
16. Kemen, Nils, Analyst, Fraunhofer UMSICHT, Germany (modeller team expert)
17. Lehman, Sasha, Analyst, Fraunhofer ISI, Germany (modeller team expert)
18. Nabiyeva, Komila, Senior Advisor, Energy Watch Group, Germany (on behalf of Mr. Hans Josef Fell, President and MP, Energy Watch Group and German Parliament, participant of the "Pathways" workshop in Kyiv, Ukraine, 14 November 2018)
19. Pacandi, Zoran, Head of Service for Energy and Renewable Energy Sources, Ministry of Environment and Energy, Croatia (national representative)
20. Rakhmanov, Nizomiddin, Staff Member of Chair Thermal Power Engineering, Power Engineering faculty, Tashkent State Technical University, Uzbekistan (national representative)
21. Roberts, John, Energy Security Specialist, Methinks, UK (member of Project Advisory Board)
22. Robu, Sergiy, Director, Energoplan srl, Republic of Moldova (expert, national representative)
23. Rogner, Holger, Senior Analyst, International Institute for Applied Systems Analysis (IIASA) (modeller team expert)
24. Spirina, Anna, Second Secretary, Permanent Mission of the Russian Federation to the United Nations Office and other International Organizations at Geneva
25. Taylor, Peter, Professor of Sustainable Energy Systems, University of Leeds, UK (member of Project Advisory Board)
26. Temirbekov, Alexander, Climate Change, Environment and Sustainable Development Consultant, Independent consultant, Kyrgyzstan (participant of the "Pathways" workshop in Bishkek, 12-14 June 2018)
27. Tinschert, Lisa, Advisor Renewable Energy, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (member of Project Advisory Board)
28. Wojszczyk, Bartosz, CEO, Decision Point Global, USA (member of Project Advisory Board)
29. Worthington, Barry, Executive Director, US Energy Association (representative of the United States donor)
30. Zakhidov, Romen, Director (head) of Institute of Energy, Uzbek Academy of Sciences, Uzbekistan (participant of the "Pathways" workshop in Bishkek, 12-14 June 2018)

Annex 8. Methodology of project comparison

The proposed methodology has been elaborated by the Consultant. It can be used to estimate comparative value added of a development agency when conducting a certain type of project. Ideally, the projects should be similar in terms of the field (e.g. sustainable energy), scope, duration of implementation, and geographic area.

The value comparison is suggested to be based on the following criteria reflecting success and management standards of the project: 1) Achievement of the project objective(s) and key indicators; 2) Level of stakeholder satisfaction; 3) Financial mechanisms and instruments applied; 4) Cost management; 5) Project deadlines.

Each criterion will be scored on a scale from 0 to 3 to provide measurable outputs of the assessment.

The detailed assessment criteria are as follows:

1. **Achievement of the project objective(s) and key indicators.** The rating scale is from 0 to 3 points: 0 – Neither the objective(s) nor the key indicators have been met; 1 - The objective(s) has/have been achieved but a number of key indicators (over 20%) have not been met; there is a possibility of non-compliance with the planned outcomes; 2 - The objective(s) has/have been achieved, the majority of key indicators have been met; no more than 20% of the key indicators have been missed; 3 - All objectives and indicators have been entirely fulfilled.
2. **Level of stakeholder satisfaction.** 0 – Less than 30% of the stakeholders are satisfied with the project results; 1 – 30-50% of the stakeholders are satisfied; 2 – 51-70% of the stakeholders are satisfied; 3 – 71-100% of the stakeholders are satisfied.
3. **Financial mechanisms and instruments applied.** 0 - The selected financing mechanisms and / or instruments were inadequate, costly, hindered the implementation of the project (caused its non-implementation); 1 - Several financing mechanisms and / or instruments had to be changed during the implementation of the project for the purpose of optimization; 2 - There were isolated failures in the use of individual tools (mechanisms) of financing, that did not affect the overall outcomes of the project; 3 - All the financial mechanisms and tools worked adequately and proved to be the best option selected from a number of alternatives.
4. **Cost management.** 0 - Substantial overspending of the project budget (more than 10% of the planned amount overspent); 1 - Minor cost overruns (less than 5%), with the actual labor (staff) costs higher than planned; 2 - Minor cost overruns, with the actual labor costs lower than or equal to the planned costs; 3 - All actual costs, including labor (staff) costs, are equal to or lower than the planned costs.
5. **Project deadlines.** 0 - The project deadlines have been missed; the project was not completed in due time; 1 – The project was completed on time but several stages/activities of the project were completed significantly off schedule; 2 – There was a slight delay in the implementation timing of one of the project phases, stages or activities; 3 - All phases, stages, and activities of the project were completed in due course.

The comparative assessment requires data inputs from at least 3 recent similar projects.

The assessment results in completing the following Table:

Comparative assessment of projects based on rating the five criteria on the 0-3 scale

	Criteria	Project 1	Project 2	Project 3
1.	Achievement of the project objective(s) and key indicators			
2.	Level of stakeholder satisfaction			
3.	Financial mechanisms and instruments applied			
4.	Cost management			
5.	Project deadlines			
	Total scores			

According to the present methodology, the project which receives the highest total score has the highest comparative value added among the projects selected for the assessment.

The main assumptions are availability of online open sources of project data, willingness of relevant Project Managers to provide necessary data to the Consultant and to answer the questions. If statistical data on the criteria 2 (Level of stakeholder satisfaction) and 3 (Financial mechanisms and instruments applied) are not available for a project under assessment, it is up to the Consultant to provide a fair expert estimation.

Annex 9. Evaluation ToR

TERMS OF REFERENCE

(maximum of 4 pages)

Strengthening capacity of the member States to achieve the energy-related Sustainable Development Goals – Pathways to Sustainable Energy

6. Purpose

The evaluation will assess whether the Project succeeded in enhancing capacity of member States to achieving sustainable energy. The purpose of this evaluation is to assess the *relevance* of the project “Pathways to Sustainable Energy”, as well as its *effectiveness* in enhancing the capacity of the ECE member States to attain sustainable energy and achieve the energy related Sustainable Development Goals (SDGs). The evaluation will also address the *efficiency* and *sustainability* of the project, in order to learn how to maintain and possibly replicate lessons-learned in the activities of the subprogrammes and Phase II of the project. The results of the evaluation will support improvement of services provided as well as future projects and activities implemented by Secretariat.

7. Scope

The evaluation will be guided by the objectives, indicators of achievement and means of verification established in the logical framework of the project documents. The evaluation will cover the full period of implementation from October 2016 to October 2019.

To make sure the evaluation is focused on specific impacts of the project, the evaluator will undertake interviews, collecting feedback only from key Project stakeholders. The evaluation process will engage: six (6) subsidiary bodies of the Committee on Sustainable Energy: Group of Experts on Energy Efficiency (GEEE), Group of Experts on Renewable Energy (GERE), Group of Experts on Gas (GEG), Group of Experts on Coal Mine Methane (CMM), Group of Experts on Clean Electricity Systems (CES), Expert Group on Resource Management (EGRM), project’s Advisory Board, as well as, governmental and non-governmental organizations that were involved in, or benefited from, the project. If direct interviews may not be acceptable to some participants, written questionnaire could be considered.

The evaluation will cover 7 subregions of the project: North America (NAM), Western Europe (WEU), Eastern Europe (EEU), Russian Federation (RF), Central Asia (CA), Caucasus (SCS) and Belarus, Moldova and Ukraine (BMU). Particular focus will be on two subregions where subregional workshops were held: i) workshop with a subregional focus on Central Asia, held in Kyrgyzstan from 12-14 June 2018; ii) workshop with a subregional focus on BMU, held in Ukraine on 15 November 2018.

The universally recognized values and principles of human rights and gender equality need to be integrated at all stages of an evaluation, in compliance with the United Nations Evaluation Group’s revised gender-related norms and standards. Therefore, the evaluation will assess

how gender considerations were included in the process and will make recommendations on how gender could be better included.³³

8. Background

At its twenty-third session, the UNECE Committee on Sustainable Energy began an exploration of how countries can attain sustainable energy in the future. Following these deliberations, a project concept was developed to address how the ECE region can attain sustainable energy by 2050 while meeting international and bilateral commitments. The overall objective of the project is to increase “the capacities of ECE member states to develop, implement and track national sustainable energy policies aligned with international agreements” while supporting the higher order goals of “contributing to climate change mitigation and sustainable development”. The project was approved by the UNECE Executive Committee on 16 September 2016.

The objective of the project is the development of strategies and actions to ensure the attainment of sustainable energy in the ECE region³⁴. The project’s goal is to strengthen the knowledge and capacities of countries to develop, implement and track national sustainable energy policies aligned with their commitments on climate change and sustainable development, and to understand the objectives and actions of other countries. In addition, it aims to contribute concretely to climate change mitigation and sustainable development. To achieve this goal, the project aims to set forth three milestones:

- (d) development of sustainable energy policy and technology options towards 2050 supported by modelling and experts’ insights;
- (e) development of a concept of early-warning system to monitor if achievement of sustainable energy objectives is on track; and
- (c) facilitation of a high-level political dialogue.

9. Issues

The evaluation criteria are *relevance, efficiency, effectiveness* and *sustainability*:

- **Relevance:** Was the project design and implementation appropriate for meeting the project’s objective?
- To what extent did the activity respond to the priorities and needs of UNECE member States? How relevant was it to the target groups’ needs and priorities?
- What is the relevance of the activity for the broader work of UNECE?
- Did the project apply gender and rights-based approaches in the design, implementation and results of the activities?
- Did UNECE advocated for gender equality in this area of work?

Effectiveness:

- To what extent the objective of the activity was achieved?

³³ Integrating Human Rights and Gender Equality in Evaluation <http://www.uneval.org/document/detail/980>, <http://www.uneval.org/document/detail/1452>

³⁴ See ECE/ENERGY/2018/1, CSE-27 2018_INF.11, and CSE-27/2017/INF.8, documents to be found under the 27th session of the Committee on Sustainable Energy here at <http://www.unece.org/index.php?id=48583>

- To what extent are the outputs consistent with and relevant to the overall objective and expected accomplishments?
- How did the project activity strengthen the national capacity of member States to develop, implement and track national sustainable energy policies aligned with international agreements?
- To what extent the expected accomplishments of the activity were achieved?
- What were the challenges/obstacles (if any) to achieving the expected results?
- What (if anything) has prevented to achieve the desired results?

Efficiency:

- Were the resources sufficient for achieving the results?
- Were the results achieved on time and were all activities organized efficiently?
- To what extent were the resources used economically?
- How could the use of resources be improved? Would you propose any alternatives to achieve the same results? If yes, which ones?
- Was the activity implemented in the most efficient way compared to alternatives? In particular, how do the costs and use of resources compare with other similar projects (within UNECE, other regional commissions, other UN agencies, or other organizations and initiatives)?
- How was the difference between planned and actual expenditure justified (if any)?

Sustainability:

- To what extent will the benefits of the activity continue after its completion, without overburdening recipient countries and stakeholders?
- How is the stakeholders' engagement likely to continue, be scaled up, replicated or institutionalized?
- To what extent do the partners and beneficiaries 'own' the outcomes of the work?
- How has the activity built in resilience to future risks?
- What were the major factors which influence the achievement or non-achievement of sustainability of the activity?
- To what extent are the objectives of the activity still valid? How can the activity be replicated in the UNECE region? Or in other regions?
- Did both women and men equally access the project benefits as intended?

10. Methodology

The evaluation will be carried out using a questionnaire, followed by targeted interviews to further elaborate the findings of the survey. An extensive desk review of existing documents will also be carried out.

A questionnaire will be sent to all participants in capacity-building workshops and seminars, consultants, as well as relevant UNECE staff involved in the project. It will include open and closed questions (in English and Russian). To ensure objective approach, the questionnaire will be prepared by the evaluation consultant, and will be reviewed by the UNECE project manager. It will search to reply to the questions listed in section IV, formulated in a way the

evaluation consultant finds best according to his/her previous evaluation experience and expertise in the region. Results of the questionnaire will be disaggregated by gender.

The interviews will take place via phone or other communication platform (e.g., Skype or Whatsapp). The UNECE project manager will provide the list with contact details. It is anticipated that the evaluator will make one visit to Geneva during the evaluation to meet with UNECE staff and stakeholders in Geneva. The visit would be preferably during the 28th Session of the Committee on Sustainable Energy on 25 September 2019 when project results will be presented.

The desk review will be based on progress reports and material available including the:

- Activity progress reports
- Capacity-building workshops and seminars
- Other documents that the evaluator deems necessary for this exercise.

A report of maximum 20 pages (plus possible annexes) will need to be submitted in English language. An executive summary should briefly summarize the project, the methodology of the evaluation, key findings, conclusions and recommendations. All material needed for the evaluation, will be provided to the consultant: project document and reports, meeting reports and publications, list of involved experts that can be interviewed by telephone.

A gender-responsive methodology, methods and tools, and data techniques are selected. The evaluation findings, conclusions and recommendations reflect a gender analysis.

11. Evaluation Schedule

5 July 2019	ToR finalized and evaluator selected
26 August 2019	Desk Review of all documents provided by UNECE to the evaluator
2 September 2019	Delivery of the inception report including design of survey
6 September 2019	Feedback on inception report by the project manager
9 September 2019	Launch of data gathering
20 September 2019	Analysis of collected information
11 October 2019	Draft report sent to Programme Manager
21 October 2019	Comments back to the evaluator after review by the project manager and the PMU
31 October 2019	Final Report

12. Resources

The resources available for this evaluation are USD 6,600, inclusive of all costs. This amount will be paid to a hired external evaluation consultant identified through the UNECE evaluation roster upon satisfactory delivery of work on 31 October 2019.

The consultant will be managed by the UNECE project manager – P-3 staff member – Iva Brkic – who will provide support by ensuring the provision of all necessary documentation needed for the desk review, guide the evaluator on the appropriate recipients for the questionnaire and for follow up interviews, and ensure that the necessary communications with these recipients are introduced by the secretariat.

The UNECE Programme Management Unit will provide guidance to the Project Manager and evaluator as needed on the evaluation design, methodology and quality assurance of the final draft report.

13. **Intended Use/Next Steps**

The evaluation results will be used in the planning and implementation of future similar projects, particularly in the potential Phase II of the Pathways to Sustainable Energy project.

The findings of the evaluation will inform follow up actions and guide initiatives already started and required to disseminate the knowledge created and enhance its use. The outcomes of the evaluation will also contribute to the broader lessons learned, by being made available on the project website³⁵ and in Open UNECE.

14. **Criteria for Evaluators**

Evaluators should have:

- An advanced university degree or equivalent background in relevant disciplines
- Specialized training in areas such as evaluation, project management, social statistics, advanced statistical research and analysis.
- Demonstrated relevant professional experience in design, management and conduct of evaluation processes with multiple stakeholders, survey design and implementation, and project planning, monitoring and management.
- Demonstrated methodological knowledge of evaluations, including quantitative and qualitative data collection and analysis for end-of-cycle project evaluations.
- Fluent in written and spoken English. Knowledge of another language (for example Russian) may be desirable depending on the countries included in the project (for the purpose of being able to seek inputs from national authorities in their native tongue).
- Demonstrated experience in applying gender perspective and human-rights based approach to evaluations.

Evaluators should declare any conflict of interest to UNECE before embarking on an evaluation project, and at any point where such conflict occurs.

³⁵ <https://www.unece.org/energy/pathwaystose.html>