

**ECONOMIC AND SOCIAL
COUNCIL**

Distr.
LIMITED
E/ESCWA/C.3/2021/5
25 August 2021
ENGLISH
ORIGINAL: ARABIC

Economic and Social Commission for Western Asia (ESCWA)

Committee on Energy
Thirteenth session
Online, 20-21 September 2021



Item 6 of the provisional agenda

Activities of the Group of Experts on Fossil Fuels**Summary**

The Group of Experts on Fossil Fuels was established pursuant to a recommendation by the Committee on Energy of the Economic and Social Commission for Western Asia (ESCWA), made at its eleventh session (Cairo, 14-16 May 2017). The Group of Experts provides a forum for dialogue and exchange of information on promoting clean and sustainable energy production, the distribution and consumption of fossil fuels, the role of natural gas, methane and carbon management, and climate change mitigation measures.

The Group of Experts includes representatives of Governments, national oil and gas companies, the private sector, international organizations, non-governmental organizations, and experts in various fossil fuel fields.

It held its first meeting in Beirut on 5 December 2018, its second meeting in Amman on 28 November 2019, and its third meeting virtually on 10 December 2020.

The Committee is invited to take note of the activities of the Group of Experts contained in the two reports set out in the present document relating to the second and third meetings of the Group of Experts, and to adopt their recommendations.

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Introduction

1. To accelerate efforts to formulate sustainable energy policies and strategies, and to assist member States in engaging in dialogue on the role of fossil fuels in the coming decades, the Committee on Energy of the Economic and Social Commission for Western Asia (ESCWA), at its the eleventh session held in Cairo from 14 to 16 May 2017, recommended the formation of an expert group on fossil fuels. The aim was to provide a forum for policy dialogue and information exchange among multiple stakeholders on many issues, including the promotion of clean and sustainable energy production; the distribution and consumption of fossil fuels and the role of natural gas; methane and carbon management; technology transfer and innovation; measures to mitigate climate change; and other new initiatives and topics in line with the ESCWA strategic framework and programme of work. The Group of Experts on Fossil Fuels acts as a subcommittee of the Committee on Energy, in accordance with ESCWA rules of procedure and United Nations regulations, and submits a report on its activities to the Committee on Energy.
2. The ESCWA Committee on Energy held the second meeting of the Group of Experts on Fossil Fuels in Amman on 28 November 2019, and the third meeting virtually on 10 December 2020. The present document sets out the reports of the second and third meetings.

Report

Second meeting of the Group of Experts on Fossil Fuels

Amman, 28 November 2019

3. Meeting participants discussed key recommendations adopted by the Group of Experts on Fossil Fuels at its first meeting, and considered several issues and topics of discussion.

I. Recommendations made by the Group of Experts on Fossil Fuels at its first meeting

4. The following recommendations were made by the Group of Experts on Fossil Fuels at its first meeting:
 - (a) Emphasize the importance of involving fossil fuel experts and authorities, and giving them a more prominent role in discussions, conferences and development topics related to the future of sustainable energy and inclusive national development plans;
 - (b) Stress the importance of incorporating gas flaring mitigation into national policies, with clearly defined targets and timetables;
 - (c) Enable a regulatory environment and supporting law enforcement agencies and policies;
 - (d) Utilize international best practices to help address challenges associated with oil shale, gas flaring, and sustainable development projects;
 - (e) Strengthen collaboration between countries and regional entities;
 - (f) Enhance coordination between subnational entities and bodies;
 - (g) Benefit from innovation, research and development in new energy areas and new business models;
 - (h) Collaborate on information and results in relevant areas, to the extent permitted nationally;
 - (i) Encourage investment among Arab countries in the field of oil and natural gas;
 - (j) Build capacity in the areas of national priority for member States by holding training workshops; inviting regional and international experts to present research, experiences and successful practices; and communicating with similar centres and organizations.

II. Topics for discussion

A. Scope of work of the Group of Experts on Fossil Fuels and adoption of the provisional agenda and organization of work

(Agenda item 3)

5. Under this item, the representative of the ESCWA Energy Division made a presentation on the objectives, scope of work and activities of the Group of Experts on Fossil Fuels, taking into account the national priorities of member States; examining issues related to the energy market, sustainable production, the use of fossil fuels and climate change measures; exchanging experiences and views on the energy situation; contributing to the establishment of a regional knowledge platform in related fields; building capacity through training workshops and participatory best practices; and strengthening regional cooperation.

B. Blue and green hydrogen: a clean energy opportunity for the Arab region

(Agenda item 4)

6. The session began with a presentation entitled “The business case related to hydrogen: an opportunity for clean energy for oil and gas producers in the Arab region”, which addressed the drivers of the new energy model and ways to create opportunities for clean hydrogen. The presentation indicated that energy consumers would begin to play a major role as stakeholders in the new energy model, which included new business models. Those new business models had been developed based on assumptions that value creation would move from upstream to downstream, and that programming and platform-based business models would outperform traditional power supply models in satisfying customers. The oil and gas sector had been shown to be competitive in the new energy model, which was characterized by new trends, digitization, decentralization and decarbonization.

7. The presentation then addressed blue hydrogen and green hydrogen and their possible supply chains, the current use of hydrogen in different sectors and its potential as a clean energy source, and the uptake of current hydrogen-related technology in various countries and organizations that were already using hydrogen.

8. The presentation indicated that hydrogen provided an opportunity for Arab oil and gas producers to extend the life of their reserves, and that those producers had the opportunity to influence the value of emerging hydrogen and supply chains. However, the window of opportunity was narrow and must be seized quickly.

C. Gas flaring: challenges and opportunities for liquefaction

(Agenda item 5)

1. Reducing gas flaring: challenges, impacts and opportunities for liquefaction

9. A presentation was made on gas flaring and liquefaction opportunities in the Arab region, which noted the challenges and opportunities of gas liquefaction, and provided a comprehensive overview of gas flaring in the Arab region.

10. The presentation linked the issue of reducing gas flaring with the various Sustainable Development Goals (SDGs), given that it was a multifaceted issue that has a direct impact on nine of the 17 SDGs, namely Goals 3, 7, 8, 9, 11, 12, 13, 14 and 15. Arab hydrocarbon producers were responsible for about 30 per cent of the gas flared globally in 2018, equivalent to 10 per cent of Arab countries’ domestic consumption of natural gas.

11. Various applicable laws were discussed, which had not been applied in general in Arab countries, aimed at mitigating gas flaring, indicating that only minimal efforts had been made at the policy level, or no efforts

had been made to address the issues at hand. Participants addressed the technical, economic, financial, political and regulatory challenges involved in those problems, and discussed monetization channels, focusing on the following:

- Compressed natural gas (CNG) fuel stations: for transportation and other uses.
- Miniature liquefied natural gas (LNG).
- Gas to liquids (GTL): petroleum products, synthetic crude oil.
- Gas-based alternatives (methane use, ammonia and urea production).
- Marketing of liquid petroleum gases (LPG).
- Injection into the gas network.
- Secondary oil recovery.
- A source of energy and raw materials for petrochemical plants.

12. Participants discussed recommendations to achieve the SDGs in relation to gas flaring, including topics related to the following: including the reduction of gas flaring in an integrated national energy and environment policy with clear objectives and timeframes; defining and empowering law enforcement institutions, and clearly defining their roles and responsibilities; reviewing agreements to assess how gas flaring mitigation was addressed, and aligning them with policies and laws; relying on international and regional best practices to implement gas flaring mitigation measures.

2. Gas flaring: Iraq case study

13. A study was presented on the status of gas flaring in Iraq, which highlighted the country's gas reserves, investment requirements, and demand for gas in the energy sector. It included a summary of the technical and legal frameworks, and noted that the integrated national energy strategy in Iraq had largely failed owing to a lack of coordination within the national sector and at the policy level.

D. Creating value from sour hydrocarbon products – sulphur (Agenda item 6)

14. Participants discussed creating value from sour hydrocarbons, based on a presentation on sulphur production as a bi-product. Sour hydrocarbons were defined, noting that 40 per cent of natural gas reserves were sour.

15. Participants also discussed methods for extracting and separating sulphur and possible ways of using it, and addressed the process of value valuation and different value chains that included production of phosphate fertilizers and sulphur-extruded asphalt.

E. Oil shale: challenges and opportunities (Agenda item 7)

1. Oil shale in Jordan: overview and projects

16. A presentation was made on the prospects and challenges of oil shale investments in Jordan, focusing on the main challenges in oil shale projects, and on the difficulties encountered in financing investment-feasible projects that depended on volatile oil prices. Other challenges included regional instability, and investors' view of the shale industry as immature and as a source of environmental damage.

17. A number of environmental laws and standards for commercial projects on shale oil in Jordan were presented, and recommendations were discussed on meeting the various risks related to oil price volatility. Topics for discussion included managing risks in a manner that took into account price volatility, benefiting from government support when considering geopolitical conditions, expanding exploration and evaluation stages, and creating a stable and sound regulatory environment.

2. *Oil shale in Jordan from the perspective of the private sector*

18. The representative of the private sector made a presentation on a project to develop oil shale under a 40-year concession agreement for the exploration and exploitation of Jordanian oil shale in the Al-Atarat area. The presentation included details of the operation and a timeline for the development phase, which began in 2020.

19. The presentation highlighted the benefits of oil shale to Jordan, including increased diversification of energy sources, job creation, and economic growth. It addressed the main challenges that accompanied oil shale projects, including technical barriers resulting from processing difficulties, and financing barriers related to the high cost of production and high investment risks.

F. National update by participants

(Agenda item 8)

20. Participants discussed developments and challenges in the field of investment in oil and fossil fuels.

III. Organization of work

A. Date and venue

21. ESCWA opened the second meeting of the Group of Experts on Fossil Fuels in Amman on 28 November 2019 at 9 a.m.

B. Participants

22. The meeting was attended by 15 representatives of member States and of relevant Arab and international organizations. Annex I to the present report sets out the list of participants.

IV. Meeting evaluation

23. Evaluation forms were distributed to the meeting participants. An analysis of responses to 12 questions revealed the following.

24. Participants agreed, or highly agreed, that the meeting of the Group of Experts on Fossil Fuels met their expectations (12 of 12 responses) and achieved its objectives (12 of 12 responses).

25. Most participants agreed that all sessions of the meeting were important and useful, and provided an effective forum for exchanging information (11 of 12 responses).

26. One participant suggested holding more than one meeting per year. Another participant suggested that more time be devoted to discussions, and that the meeting be extended to two days in the future to benefit from different experiences.

Annex I***List of participants**Iraq

Mr. Mohammed Enad Chwayyed
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Ministry of Oil/Midland Oil Company

Jordan

Ms. Ghussaina AlHilu
Director of Natural Resources Projects
Ministry of Energy and Mineral Resources

Mauritania

Mr. Mohamed Ahmed Bâ
Deputy Director
Exploration and Production of Hydrocarbons
Ministry of Petroleum, Energy and Mines

Morocco

Ms. Saloua Moujahid
Head of Natural Gas Department
Ministry of Energy, Mines and Environment

Ms. Fatima El Aamili
Head of the Petroleum and Alternative Supplies
Department
Directorate of Fuels
Ministry of Energy, Minerals and Sustainable
Development

State of Palestine

Mr. Abdulhadi Barakat
Projects Monitoring Unit Director
Palestinian Energy & Natural Resources Authority

Sudan

Mr. Adil Abbkar Abdalla Hassaballa
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Yemen

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Experts

Ms. Syham Bentouati
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Muscat

Mr. Yesar Al-Maleki
Managing Director
Iraq Energy Institute
Baghdad, Republic of Iraq

Mr. Anas Murshed Mahmood Al-Gburi
Business Development Manager
Iraq Energy Institute
Baghdad

Mr. Wael Al Mazeedi
Scientific Advisor
Kuwait Foundation for the Advancement
of Sciences
Kuwait City

Mr. Osama Nouba
Contracts Manager
Shell Jordan
Amman

Mr. Ahmed Abu Salah
Operations Manager
SACOS
Amman

Mr. Maysam Otoum
National Project Officer
United Nations Development Programme
Amman

* Issued as submitted.

Report
Third meeting of the Group of Experts on Fossil Fuels
Virtual, 10 December 2020

1. Participants discussed key recommendations adopted by the Group of Experts at its second meeting, and considered several issues and topics for discussion.

**I. Recommendations made by the Group of Experts
on Fossil Fuels at its second meeting**

2. The Group of Experts made the following recommendations:

(a) Emphasize the importance of involving fossil fuel experts and authorities, and of giving them a greater role in discussions, conferences and development topics related to the future of sustainable energy and inclusive national development plans;

(b) Stress the importance of incorporating gas flaring mitigation into national policies with clearly defined targets and timetables;

(c) Emphasize the importance of hydrogen and its role in the energy transition in the Arab region;

(d) Strengthen collaboration between countries and regional entities and regional coordination to achieve sustainable management of the environment and natural resources; and stress the importance of the role of the circular carbon economy;

(e) Leverage innovation, research and development in new energy areas and new business models;

(f) Collaborate on information and results in relevant areas, to the extent permitted nationally;

(g) Encourage investment among Arab countries in the field of oil and natural gas;

(h) Build capacity in areas of national priority for member States through training workshops;

(i) Invite regional and international experts to present research, experiences and successful practices; and communicate with similar centres and organizations.

II. Topics for discussion

3. The discussion highlighted the developments in the field of energy and the economy, and the consequences of the COVID-19 pandemic and its impact on progress in the field of energy transition in the coming years. The global economy had witnessed the worst recession, with global oil and gas revenues falling to their lowest levels in two decades, despite government efforts to combat the decline by providing support for fiscal and monetary policies.

4. Low oil prices had significantly affected the main drivers of financial and regulatory changes. Prolonged low oil prices could accelerate the pace of financial policy needed for reforms in the Arab region.

5. With the decline in world oil prices, Arab oil-exporting countries faced a great challenge by losing more job opportunities than any other industries, which posed a challenge for economic and social growth. The focus should therefore be on how to diversify the economy and the energy mix away from fossil fuels to ensure a more resilient economy. The decline in renewable energy prices in recent years helped create green jobs and increase opportunities in the Arab region to make more investments in decarbonization and energy efficiency measures.

6. One of the main opportunities for obtaining clean and diversified energy was to increase investment in energy efficiency in the construction, industry and transportation sectors, to raise the share of renewable energy

in final energy consumption, and to invest in storage, including green hydrogen and natural gas, and carbon capture, in addition to strengthening the interconnection of electricity networks between Arab countries.

7. The success of the energy transition in the Arab region was largely related to diversifying the energy mix away from fossil fuels. Hydrogen was on the verge of becoming a major factor in the energy system, but the cost of production was still high and must be reduced. Moreover, the leaders of the G20 countries endorsed the concept and model of the circular carbon economy for climate change mitigation.

III. Organization of work

A. Date and venue

8. ESCWA organized the virtual third meeting of the Group of Experts on Fossil Fuels on 10 December 2020 at 1 p.m. The meeting ended at around 3 p.m. on the same day.

B. Participants

9. The meeting was attended by representatives of member States and of relevant Arab and international organizations, and by a group of experts. Annex II to the present report sets out the list of participants.

Annex II***List of participants**Iraq

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Lebanon

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Mauritania

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Ms. Fatima El Aamili
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Chief Economist and Head of Strategy, Energy
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* Issued as submitted.