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**Economic and Social Commission for Western Asia (ESCWA)**

## **Report**

### **Expert Group Meeting on the Tracking Progress towards Sustainable Energy- Horizon 2030 in the Arab Region Egypt, Cairo 14-15 May 2017**

#### **Summary**

Within the context of its work on sustainable energy, the United Nations Economic and Social Commission for Western Asia (UN-ESCWA) organized an Expert Group meeting (EGM) on “Tracking progress toward the sustainable energy - Horizon 2030 in the Arab region” during 14<sup>th</sup> to 15<sup>th</sup> May, 2017 at the Semiramis Intercontinental Hotel, Cairo, Egypt. This EGM falls under the strategic framework of UN-ESCWA on strengthening the capacity of UN-ESCWA Member States on mainstreaming the energy-related SDGs and Paris Agreement into their national development plans and help them to demonstrate progress, develop, implement, and monitor fact-based sustainable energy action plans.

The participants of the EGM included the members of the Energy Committee, energy experts as well as representatives from regional/international organizations. This EGM gave an opportunity to participants to update the panel on the accomplishments of their relative countries in terms of energy sustainability, climate change and energy policy.

Based on the Agenda of the meeting, participants discussed the subject through 4 sessions: 1) Tracking progress towards sustainable energy in the Arab region, 2) Updates from international organizations on energy related activities, 3) Energy policy challenges and lessons learned, 4) Country update on energy policies and progress toward sustainable energy.

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## Introduction

1. The 2030 Agenda for Sustainable Development (SD) requires countries to pursue concerted and accelerated action on sustainable energy in their national programmes in order to reconcile the growing need for energy services with mitigating the impacts of energy resource development and use. This situation calls for profound and immediate changes in how energy is produced and consumed. In this context, the “Global Tracking Framework-GTF” report in the Arab region has been prepared in 2017 for the first time by the UN-ESCWA with support of the World Bank and SE4ALL.
2. The present EGM aimed at exploring the progress of the region’s sustainable energy efforts in line with the 2030 Agenda for SD and how governments understand key elements of sustainable energy and potential action forward and share their view and approach towards a sustainable energy future, with highlighting the challenges and success factors at country level.
3. The objectives of the EGM are to: 1) Identify differences and similarities between countries’ approaches and understandings of sustainable energy today and in the future, 2) Recognize key milestones, major uncertainties and risks in the region for achieving sustainable energy future in 2030 and beyond, 3) Collect ideas to support achievement of sustainable energy in 2030 and beyond, 4) Increase alignment of Member States’ national plans with the energy SDGs, particularly goal 7. To achieve these objectives, the discussions during EGM focused on: a) Gaps between policies set today and the future targets for a sustainable energy, b) The role of Energy Efficiency (EE) and low-carbon energy resources in future energy mix, c) Nexus between energy and other areas such as water, food and climate, d) Brainstorm on the policy options to lead a sustainable energy pathway, 5) Highlight the major trends in terms of Energy Access, RE and EE.

## Main Topics of Discussions

The Meeting was structured to include presentations/interventions and discussions according to the substantive sessions as follows (Agenda is attached in Annex-A):

### A. Tracking progress towards sustainable energy in the Arab region

4. This session included a key presentation on “Tracking Progress Toward Sustainable Energy: Major Trends for the Arab Countries”, which started by overviewing the Global Tracking Framework (GTF) methodology, and Sustainable Energy For All (SE4ALL) initiative. The presentation overviewed the three GTF biennium reports “2013, 2015 and 2017”. The 2017 report will “for the first time” publish regional track specific progress. In the context of Arab region tracks progress, the presentation overviewed regional data pertaining to energy consumption, energy access, energy efficiency and renewable energy “mainly wind and solar”. The presentation raised important concerns, including:
  - In Arab region, the growth of energy consumption (more than doubled in 2014 compared with 1990), population, industrialization and rising living standards will escalate the energy demand with high rates in the future.
  - The energy related challenges in the Arab region (e.g. energy, water and food security; high rates of urbanization; climate change vulnerabilities; wide-range national development; unequal access to energy and natural resources) require multi-dispersary and integrated strategies at the national and regional level.
  - Cooperative and intensive EE efforts along the entire energy system (from production to end users) is required to enhance energy intensity.
  - Overcoming the cost, technology and market barriers is needed to increase the share of RE in the Arab countries’ energy mix.

- The policymakers have a crucial role in transition to sustainable energy systems over the coming years.
5. After the presentation, the participants raised some points, among these: the importance of updating the data beyond 2014 and significant ESCWA/ IRENA cooperation in this concern – the necessity of integrated technology in the energy field for enhancing energy access – the importance of reducing/re-directing energy subsidies in pushing EE and RE activities – the importance of awareness in pushing EE projects – the effective role of IRENA in providing data to support national RE plans and strategies – the development of local RE equipment manufacturing – the importance of regulations and initiatives in supporting EE and RE.

## **B. Updates from International Organizations on Energy Related Activities**

6. The “African Energy Information System (AEIS) & Database” have been discussed. The AEIS five (5) databases on energy statistics - EE, RE, energy infrastructure and energy-related socioeconomic - were overviewed along with other world energy information systems and databases (EIA, OECD/IEA, OPEC/OAPEC, APEC and OLADE) and primary & secondary sources of energy data. At the end, the presentation summarized training activities during 2011-2016 and overviewed AFREC publications. It is concluded that African countries have good data systems, but the lack of financing is the main barrier against up-grading this data system. The participants wished to set a practical methodology within common understanding of all partners for getting credible data and to establish an Arab database for energy.
7. A presentation entitled “Renewable Energy and the Arab Region” presented important issues related to RE, including: 1) cost of electricity generation by RE compared to fossil fuel, 2) price trends of solar PV and onshore wind in selected countries during 2010 and 2016, 3) annual investments in RE during 2014 and 2015 in different regions of the world, 4) annual renewable and non-renewable new capacity additions, 5) RE installed capacity in the Arab region, 6) targets in the global RE landscape, 7) RE potential and developments in the Arab world, 8) renewable energy auctions, 9) IRENA’s engagements in the Arab region, 10) benefits of RE transition, 11) RE manufacturing potential in the Arab region, 12) IRENA’s project support .

The presentation concluded that:

- Solar PV and onshore wind recorded major reduction in generation cost (about 80% during 2010 and 2016), and the price of solar PV and onshore trend decreases along the years
  - Remarkable high investment in RE in 2016 was recorded
  - Added renewable power capacity has exceeded non-renewables for the last 5 years (RE produced in 2015 represented 5.87 % of the total generation capacity in the region)
  - Today, 173 countries have at least one type of RE target – up from 43 in 2005
  - In 2016, USD 11 billion were invested in renewables across the Arab region compared to USD 1.2 billion in 2008
  - RE benefits by 2030 could be 1.1% growth in GDP, 24 million generated jobs and 3% increase in welfare
  - Over 20 projects were selected by the Abu Dhabi Fund for Development “ADFD” and approved for funding.
8. The last presentation in this session was entitled “Energy Analyst/OAPEC”; and it overviewed the efforts and activities of OAPEC countries on sustainable energy, with focus on opportunities and challenges. The presentation provided a brief on key energy indicators in the OAPEC member countries and their position in global energy markets and discussed the opportunities and challenges against transition to sustainable energy path through 2030 Sustainable Development agenda, especially goals 7 and 13. The presentation raised some concerns, including the following:
- OAPEC member states recorded the highest annual growth rate for total primary energy consumption (4.7%) compared with other regions during the period 1980-2015
  - In 2015, oil and gas represented 98.8% of total energy consumption with a declining contribution from coal, nuclear and renewable energies (1.2%, compared to 47% in the global mix)

- There is a balance dilemma between ensuring stable supply of global energy markets and maximizing the benefit with optimal use of available resources
  - The main challenge is how to shift to a new and sustainable energy path; and how to assess the political, economic, social and environmental costs of this shift
  - The importance of technologies and policies, in particular those related to cleaner fossil fuels, such as RE, EE and carbon capture and storage
9. At the end of this session, Ms. Radia Sedaoui (Energy Section Chief/ SDPD/ESCWA) mentioned that OAPEC is considered a strategic partner with ESCWA in activities related to cleaner fossil fuels, and Mr. Mongi Bida (Energy Section/SDPD/ESCWA) pointed to the importance of clarifying the calculation methodology of RE contribution to the energy mix at the national level.

### **C. Energy Policy Challenges and Lessons Learned**

10. This session started by a presentation on “Energy Policy Challenges in the Arab Region” which focused on challenges related to domestic energy situation and domestic electrical energy consumption. In the Arab region, EE represents the most appropriate tool for demand-side management, while RE can provide an important contribution to the energy supply. It is stated that, the main sustainable energy challenges in Arab Countries are: low energy cost - lack of adequate policies & regulatory frameworks - weak institutional coordination and lack of suitable human and financial resources. Some concerns have been raised during the presentation, among these:
- Given the available potential in the Arab region, are EE & RE plans and targets sufficiently ambitious?
  - Are the existing policies and institutional frameworks capable of providing the enabling conditions to benefit from EE & RE potential and meet EE & RE targets?
  - What are the issues that are needed to engage the different stakeholders into developing the enabling conditions?
  - Who are the main stakeholders and their responsibilities?
  - What are the urgent steps needed to be taken by Arab governments to adopt a proactive approach for developing more sustainable energy systems?
11. This session included a panel discussion; three key guiding questions were proposed for discussion during this panel: 1) Are the existing policies and institutional frameworks capable of providing the enabling conditions to tap into this potential and meet these targets? 2) What are the urgent steps that need to be taken by Arab governments to adopt a proactive approach for developing more sustainable energy systems? 3) How can Arab countries integrate the energy related sustainable development goals (SDGs) and associated targets, particularly SDG7, into their socio-economic development plans and what kind of monitoring mechanisms are required? According to the Agenda, the panel discussion included five (5) interventions. The critical points and concerns raised during the panel are as follows:
- Supporting the so called “integrated sustainability”, which should include proper policies and planning of various energy resources, with focus on 1) enhancing energy pricing and energy subsidies since low energy prices are the main reason behind the non-sustainable energy use, 2) promoting the diversification of energy resources with a priority to RE, 3) liberalizing the energy markets and reducing the dependence on governments while enhancing regulations to support the private sector and investors, 4) achieving transparency and providing intensive awareness, particularly for energy users, 5) linking between scientific research and energy issues.
  - Enhancing the legislative framework of and addressing the barriers against RE and EE with a focus on financing, energy subsidies, regulations & institutional barriers. As well as providing great and integrated efforts for improving EE among energy systems considering the ultimate challenge is “*Creating jobs for youth*”. The decent experiences and best practices existing in the Arab region should be used to enhance energy systems.

- Given the Yemeni crises, it is stated “*development of electricity systems is a condition for development of the entire life in Yemen*”. Since the energy sector faces shortage in fuel and electricity supply and damage in electricity network, it is advised to use solar energy and diesel generators to cover this shortage. In this context, it is important to develop/up-grade the “energy monitoring system” which has been established to evaluate energy systems and provide the appropriate energy alternatives.
- Based on the Arab Future Energy Index (AFEX) report and in the context of the Arab Renewable Energy Strategy (2013-2030), it was noted that Arab countries are undergoing a radical change in sustainable and low-carbon energy investments as means to meet the challenges and to build the capacities for development. So it is important to prioritize and aim the efforts in this concern.
- The development of energy policies, programmes, plans and ambitious objectives are not matched with the development of institutional systems in the Arab countries. Therefore, it is urgent to develop institutional and regulatory frames to meet the requirements of sustainable energy in the Arab countries; as well as to enhance regional integration for developing a powerful unified energy market in the region.

12. At the end of this session, participants raised some comments, as follows:

- Jordan: Importance of developing a research plan; encourage the cooperation among institutions at the national level; remove energy subsidy.
- Syria: Direct energy subsidies caused an improper housing development; the importance of green building; the significant role of institutional frameworks in setting energy policies and coordination between various sectors; the importance of involving all partners, particularly the private and public sectors.
- Ms. Anhar Hegazi: The matter is not only issuing the regulations but also implementing them; sustainable development is not only regulations but also a national mental state and needs education and awareness; information and experience exchange among countries are important.
- Mr. Ibrahim Abdel Gelil: the development of a regulatory body is important for private sector participation.
- Mr. Mongi Bida: political support is important, as well as ethical issues

#### **D. Country update on energy policies and progress toward sustainable energy**

13. **Jordan:** The Jordanian government aims at maximizing and diversifying local energy resources, maximizing RE applications, enhancing regional electric networks interconnection and the introduction of nuclear energy. Jordan built a maritime port and a Floating Storage and Regasification Unit (FSRU) in Aqaba to supply fuel to 92% of the power stations. Jordan also implemented RE projects using different schemes including direct proposals, Engineering Procurement & Construction (EPC), and net metering schemes with currently installed capacity reaching 400 MW.
14. **Lebanon:** There is no problem in electricity access in Lebanon as the grid covers the Lebanese territory, but the problem lies in “generation capacity shortages”, where local diesel generators are used to cover these shortages; subsidized electricity is a major barrier in Lebanon. To enhance EE and support RE, Lebanon prepared its National Energy Efficiency Action-NEEAP 2010-2015 and National Renewable Energy Action Plan -NREAP.
15. **Palestinian:** In 1995, the Palestinian Energy and Natural Resources Authority/PENRA was established to manage the energy sector and supervise energy institutions. Power shortages are due to the limited power purchased from Jordan and Egypt, the high cost of power imported via Israel and the limited domestic power generation high technical & non-technical losses. The objective of the Palestinian strategy for energy independence 2017-2022, are: Improving the national power production and better exploit national resources; increasing RE resources; improving EE through increasing awareness and reducing losses; increasing energy security through diversification of import resources and reforming institution frames.

16. **Syria:** The Syrian crisis has negatively affected the electricity sector from different angles (fuel supply, generation, transmission, distribution, demand, human resources and financial capabilities). The main challenges facing the electricity sector are fuel shortages, terrorist attacks and financial losses. In preparation for the post-crisis, and to encourage private investments in the power sector including RE, Syria adopted appropriate laws and regulations. Currently ESCWA is providing technical support to rehabilitate the Syrian electricity sector.
17. **Iraq:** In 2008, short and long-term (2020 and 2030) plans for energy were established but the integration between different ministries is crucial to implement these plans. There is a necessity for evaluating the electricity sector; however, in the meantime, power plants have been modified to operate using alternative fuel (which are produced from crude oil) which have reduced the fuel cost. There is a plan to convert 17 power plants from gas turbine to combined cycle (Al-Amarh - Khor Al Zubair - AL-Sadr 1 - AL-Sadr 2 - AL-Quds - Al- Najaf - Al- Hillah Karbala - Al – Haydariyah 1 - Al- Diwaniyah - South Baghdad 1 - Al- Mansuriya - Al- Mansuriya – Dibis - Okaz - Al- Qayyarah – Baiji), a considerable capacity (MW) is expected to be added due to this conversion. Furthermore, 955 MW is expected to be available in future due to implementing 15 solar PV projects in Iraq.

## **Organization of Work**

### **A. Venue and Date**

The Expert Group Meeting on “Tracking Progress towards Sustainable Energy- Horizon 2030 in the ArabRegion” was organized at the Semiramis Intercontinental Hotel, Cairo, Egypt from the 14<sup>th</sup> to 15<sup>th</sup> May, 2017.

### **B. Opening**

1. The meeting was formally opened and welcomed by Ms. Roula Majdalani, Director of Sustainable Development Policies Division (SDPD), UN-ESCWA and Ms. Radia Sedaoui, Chief of the Energy Section, SDPD, UN-ESCWA. The Agenda of the meeting was briefed by Ms. Bothayna Rashed, Economic Affairs Officer, Energy Section, SDPD, UN-ESCWA.

### **C. Participants**

2. The workshop was attended by about 40 participants (see Annex-B), gathered members of the ESCWA Committee on Energy, energy experts as well as representatives from regional/international organizations.

### **D. Agenda**

3. Presentations and discussions were made over the below four sessions (as indicated in Agenda - Annex-A).
  - Tracking progress towards sustainable energy in the Arab region
  - Updates from international organizations on energy related activities
  - Energy policy challenges and lessons learned, including panel discussion
  - Country update on energy policies and progress toward sustainable energy

### **E. Evaluation**

4. An evaluation questionnaire was distributed to assess the relevance, effectiveness and impact of the meeting. A total of 23 participants responded to the questionnaire; all of them (100 per cent) provided good to excellent rating for the overall quality of the EGM, the clarity of the meeting objectives, allocated

time of each session and the quality of panel contributions. 90 per cent agreed that the EGM met its objectives with a rating of good to excellent while 95 per cent rated the quality of presentations as good to excellent and believed that the meeting contributed to building relations with stakeholders in the field of advanced green technologies through science-policy interface. Moreover, 95 per cent saw a need for follow-up action(s) on the results of the meeting. The participants also raised some points in the evaluation questionnaire, e.g.: the importance of follow up, facing the obstacles, monitoring the results, disseminating successful stories and experiences among Arab countries through the ESCWA Energy Committee or any other designated body within ESCWA, providing more discussions and assistance in the fields of water, energy and food nexuses, encouraging private investments in electricity networks, the importance of the communication and coordination and tracking progress achieved at the national level, providing the documents/presentation of the meeting early, increasing the time allocated to cover the different issues of the subject.

## Annex (A): Agenda of the Meeting

UNITED NATIONS

E



### ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA (ESCWA)

Expert Group Meeting: "Tracking progress toward the implementation of energy related SDGs in the Arab region", 14-15 May 2017- Cairo, Egypt

*DAY 1: Tuesday, 14 May 2017 from 16:00 till 18:00*

- 16:00 – 16:30 REGISTRATION
- 16:30 – 16:45 OPENING SESSION AND INTRODUCTION
- MODERATOR: *Ms. Radia Sedaoui, Chief Energy Section, Sustainable Development Policies Division (SDPD)–ESCWA*
- WELCOMING REMARKS:  
*Ms. Roula Majdalani, Director Sustainable Development Policies Division SDPD-ESCWA*
- Tour de Table (10 min.)
- 16:45 – 16:50 SETTING THE CONTEXT: AGENDA & EXPECTED OUTCOMES FROM THE EGM  
*Ms. Bothayna Rashed, Economic Affairs Officer, Energy Section, SDPD–ESCWA*
- 16:50 – 17:20 SESSION 1: TRACKING PROGRESS TOWARDS SUSTAINABLE ENERGY IN THE ARAB REGION
- MODERATOR: *Mr. Taoufik Laabi, Energy Expert, Morocco*
- 16:50 – 17:10 TRACKING PROGRESS TOWARD SUSTAINABLE ENERGY: MAJOR TRENDS FOR THE ARAB COUNTRIES  
*Ms. Radia Sedaoui, Chief Energy Section, SDPD–ESCWA*
- 17:10– 17:20 Q&A and Discussion
- 17:20 – 18:00 SESSION 2: UPDATE FROM INTERNATIONAL ORGANIZATIONS ON ENERGY RELATED ACTIVITIES
- MODERATOR: *Dr. Ibrahim Abdel Gelil Abdalla, Adjunct Prof. Arabian Gulf University, Consultant, Energy and Environment*
- 17:20 – 17:30 PRESENTATION FROM AFREC  
*Mr. Atef Marzouq, Interim Executive Director, African Energy Commission (AFREC)*
- 17:30 – 17:40 PRESENTATION FROM IRENA  
*Mr. Gurbuz Gunul, Senior Programme Officer-Region, IRENA*
- 17:40 – 17:50 PRESENTATION FROM OAPEC  
*Mr. ElTaher A Sghir Elzitoni, Energy Analyst, OAPEC*
- 17:50 – 17:55 Q&A and Discussion
- 17:55 – 18:00 FIRST DAY WRAP UP

**DAY 2: Monday, 15 May 2017 from 14:30 till 18:00**

**14:30 – 15:30** SESSION 3: ENERGY POLICY CHALLENGES AND LESSONS LEARNED  
 MODERATOR: *Mr. Malek Kabariti, Former Minister, Ministry of Energy and Mineral Resources, Jordan*

**14:30 – 14:50** ENERGY POLICY CHALLENGES IN THE ARAB REGION  
*M. M. Mongi Bida, First Economic Officer Energy Section, SDPD – ESCWA*

**14:50 – 15:30** PANEL DISCUSSION

*Key guiding questions for discussion:*

- *Are the existing policies and institutional frameworks capable of providing the enabling conditions to tap into this potential and meet these targets?*
- *What are the urgent steps that need to be taken by Arab governments to adopt a proactive approach for developing more sustainable energy systems?*
- *How can Arab countries integrate the energy related sustainable development goals (SDGs) and associated targets, particularly SDG7, into their socio-economic development plans and what kind of monitoring mechanisms are required?*

**PANELISTS**

- *Ms. Anhar Hegazi, Counselor to the Minister of State for Environment Affairs, Egypt*
- *Mr. Mohamed El Haouari, Director of RE & EE Dept., National agency for RE & EE, Morocco*
- *Ms. Kawther Lihidheb, International Energy Specialist, ECONOLER, Tunisia*
- *Mr. Hamed Abdo Ahmed Al Hammadi, Director of Environment Statistics and Sustainable Development, Central Statistical Organization, Yemen*
- *Hussain Jaffar Abdulla Makki Ali, Director of studies and International Relations Department, NOGA-National Oil and Gas Authority, Bahrain*

**15:30 – 15:45** COFFEE BREAK

**15:45– 17:20** SESSION 4: COUNTRY UPDATE ON ENERGY POLICIES  
 AND PROGRESS TOWARD SUSTAINABLE ENERGY

MODERATOR: *Dr. Mohammed EL-Khayat, Vice Chairman for Studies, Research, and Technical Affairs, New & Renewable Energy Authority (NREA), Egypt*

- *Mr. Mustafa Mohammad Mustafa Khatib, Director of Electricity Department, Ministry of Energy and Minerals Resources, Jordan*
- *Ms. Aurore Feghaly, General Director of Oil, Ministry of Energy & Water, Lebanon*
- *Mr. Ayman Fouad Ismail, General Manager, Palestinian Energy and natural Resources Authority, Palestine*
- *Mr. Nedal Karamoucheh, Minister's Assistant, Ministry of Electricity, Syria*
- *Others ... (TBC)*

**17:20 – 17:50** Q&A and Discussion

**17:50– 18:00** Wrap-up and Concluding Remark

## **Annex (B): List of participants**

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