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REPORT

REGIONAL WORKSHOP ON OIL AND GAS PRICING PARAMETERS INFLUENCING ENERGY EFFICIENCY AND RENEWABLE ENERGY ACTIVITIES KUWAIT, 11 JUNE 2013

Summary

The Economic and Social Commission for Western Asia (ESCWA) and the Kuwait Institute for Scientific Research (KISR) co-organized a regional workshop on Oil and Gas Pricing Parameters Influencing Energy Efficiency and Renewable Energy Activities, following the deliberations that took place during the "Intergovernmental Consultation Meeting on the Water and Energy Nexus in the ESCWA Region" (Beirut, 27-28 June 2012). The workshop, held in Kuwait on 11 June 2013, brought together representatives from the ESCWA Committee on Energy, KISR and technical experts working in the Arab region.

The workshop offered a platform for capacity-building and promoting the exchange of experiences and lessons learned on oil and gas pricing parameters that influence energy efficiency and renewable energy activities. The workshop specifically enabled participants to understand the economics of oil and gas from a supply and demand perspective, and the different factors and actors involved in determining cost and pricing. It also built the capacity of participants to relate the effects of pricing on the prospects of renewable energy and energy efficiency, and relate the oil and gas market pricing to climate change. The workshop finally helped to identify priority technical areas for capacity-building programmes related to oil and gas pricing that would enhance access to sustainable energy for all while ensuring economic soundness.

CONTENTS

Introduction

1. The consumption of oil and gas continues to dominate the global energy mix. With such a weight, oil and gas have influence on the performance of all productive sectors, albeit with varying degrees. Renewable energy (RE) and energy efficiency (EE) are among the affected sectors in the member countries of the Economic and Social Commission for Western Asia (ESCWA) where, except in some minor cases, the reliance is still on oil derivatives and natural gas. Activities in the fields of EE and RE are particularly impacted by the price fluctuation, as their outputs directly compete with oil and gas commodities. Understanding the affecting parameters related to oil and gas thus contributes to better energy planning.

2. In that respect, identifying oil and gas-related parameters, and understanding how and why the prices of these commodities fluctuate, will enhance the capacities of professionals in the energy sector, strategic planners and decision–makers. They would indeed better foresee trends in EE and RE research, development and marketing, and better plan EE and RE policies and programmes.

3. ESCWA and the Kuwait Institute for Scientific Research (KISR) organized a workshop on Oil and Gas Pricing Parameters Influencing Energy Efficiency and Renewable Energy Activities" in Kuwait, on 11 June 2013, following the deliberations that took place in the "Intergovernmental Consultation Meeting on the Water and Energy Nexus in the ESCWA Region", during which participants had identified the topic as a priority capacity-building need (June 2012).

4. The aim of this workshop was to build the capacity of regional stakeholders and promote the exchange of experiences and lessons learned. Its specific objectives were the following:

(a) Enable the participants to understand the economics of oil and gas from a supply and demand perspective, and the different factors and actors involved in determining costs and pricing;

(b) Build the capacity of participants to understand the effects of pricing on the prospects of RE and EE actions;

(c) Relate oil and gas market pricing to climate change;

(d) Identify priority technical areas for developing capacity-building programmes that target policymakers and technical personnel, to help them address the economic and pricing dimensions of the energy mix, with the aim of enhancing access to sustainable energy for all while ensuring economic soundness.

I. TOPICS OF DISCUSSION

A. Opening Session

5. The session opened with a statement by Mr. Salem el-Hajraf, Executive Director of the Centre for Energy and Construction at KISR, who welcomed participants and highlighted the importance of oil and gas pricing parameters for the region.

6. Ms. Roula Majdalani, Director of the Sustainable Development and Productivity Division at ESCWA, then highlighted the increase in energy consumption which was witnessed in the Arab region since the 1990s, and the different concerns arising from this increase. She also highlighted the negative consequences resulting from the prevalence of important fuel subsidies in the region, and the need to curb these subsidies and give more importance to the support of RE and EE programmes.

7. Mr. Walid al-Deghaili, ESCWA Consultant, stated that ESCWA member countries rely heavily on oil and gas as a primary source of energy, which represents 97 per cent of their energy mix, versus 55 per

cent in the rest of the world. ESCWA member countries produce electricity through the use of heavy fuel oil, diesel oil and gas, while the worldwide trend is to produce electricity from coal and natural gas. He also added that there will still be a need for oil and gas in the coming ten years due to the increased needs for electricity production and desalination. He mentioned that most ESCWA member countries rely on the sales of oil and gas to finance their development programmes, and the share of those sales usually exceeds 70 per cent of the budget of countries. As a result, all ESCWA member countries - whether they produce oil and gas or not - would benefit from an increase in the prices of these products. Indeed, producers would benefit from an increase in revenues, and non-producers would benefit from remittances from citizens who live in oil and gas producing countries, and eventually from grants and loans from their sister countries He also added that the higher the prices of oil and gas, the higher the subsidies, and this is another reason to limit the subsidies for those in need, as a social grant.

B. Session 1: Renewables and Hydrocarbon Interaction, and Oil Fundamentals

8. Mr. Dominique Venet, ESCWA consultant, presented an introductory overview of the interlinkages between renewables and hydrocarbons in a number of fields, such as the environment, and carbon dioxide and other gas emissions; power production, particularly renewables versus gas-fired generation; power networks stability and standby hydrocarbon-fired generation; and financial interactions, including subsidies to renewables and capacity charge to gas-fired power generation. He then highlighted that oil is not a competitor in power generation, except for very small plants and oil-producing countries, and that natural gas is the power generation hydrocarbon. He also added that oil still has an indirect influence on power generation through its influence on the mechanisms of gas prices.

9. Mr. Venet then presented the fundamentals of oil production and reserves, and oil refining. He explained that oil is only exceptionally used without being broken down in refineries into oil products, ranging from liquefied petroleum Gas (LPG) to bitumen. He added that refining schemes have improved over time and have a direct influence on oil valuation. He then tackled the issue of international oil trade, and presented crude price evolution and oil shocks, in addition to the development of international crude markets and crude oil differentiation, and a description of the current situation of oil trade.

10. During the discussion, it was argued that renewable energy cannot be considered as an alternative to non-renewables, as renewables cannot be available 24 hours a day. Mr. Venet indicated that a key factor for the economic efficiency of a system is the numbers of hours it functions per year. He also mentioned that there is a possibility for a technological breakthrough in solar energy efficiency. He then added that solar panels should be placed in regions where there is enough sun radiation, regardless of the considerations of equality between a country's regions. He finally mentioned that in order to transport energy, it would be better to transport hydrocarbons, whether natural gas, oil or oil products, rather than electricity, which generates substantial losses over long distances.

C. Session 2: Gas Industry

11. Mr. Venet presented an overview on natural gas uses, supply and demand, and he specifically tackled the combined cycle gas turbine (CCGT), the gas supply/demand balance, gas reserves, and the main producing and consuming countries. He then highlighted the three key recent evolutions affecting the gas industry, namely CCGT, liquefied natural gas (LNG) and unconventional gas. He also presented the main gas transportation techniques and their specific economics and implications. He also provided insights about natural gas storage, specifically types of flexibility and storage technologies. He then discussed international gas trade, gas markets, and the implication of recent international events on the gas industry.

12. During the discussion, Mr. Venet stated that, in times of economic crisis, Governments usually face a dilemma of choosing between adopting renewables, which entails a higher cost for consumers, or enabling citizens to pay their energy bills through the use of conventional energy sources. He also added that the Organization of the Petroleum Exporting Countries (OPEC) can play a major role in engineering oil prices,

and that the price of oil today is at a level that is not substantiated by the physical balance between oil demand and oil production. One possible explanation is that a lot of oil trades are not physical but are "paper" trades initiated by financial investments in commodities.

D. Session 3: Gas Contracts and Pricing

13. Mr. Venet started this session by presenting a video about shale gas exploration, produced by the American Petroleum Institute. He then presented the issue of natural gas contracts and stated that a specific feature of the gas industry is the wide use of long-term contracts, which appeared as needed to back the huge infrastructure investments. He also addressed the issue of natural gas prices, and mentioned that they can be the results of gas- to-gas competition, or be determined in accordance with pricing formulae using various indexes. He then concluded by stating that the widespread use of gas and recent events are leading to an evolution of the long-term contracts, which were the backbone of the initial development of the gas industry.

14. During the discussion, Mr. Venet argued that gas is starting to respond to different pricing norms given that technological breakthroughs have triggered new developments. In Europe, gas is facing a reduction in prices in gas hubs because of the oversupply due to the take from long-term or pay commitments combined with slower demand. The demand decrease is a result of the economic crisis and the fact that large public utilities currently have difficulties in balancing their gas portfolios. He also added that the rigidity of long-term contracts renders the process of the adjustment of supply and demand of gas very difficult, unlike with oil. REs constitute a strategic development solution for all countries, on the condition that they be adapted to the region where they are being produced. In an answer to a question about recent gas discoveries in the Eastern Mediterranean, Mr. Venet said that the site is quite large, that there is potential for exports in addition to internal consumption, and that Governments should have a say on what to do with their gas reserves. He also mentioned some of the reasons that lead to the development of shale gas in the United States of America, including the legal status of subsurface ownership; the availability of a transportation network; the very dynamic oil and gas industry; and the oil price increase that led to the adoption of other various technologies.

15. Mr. Walid al-Deghaili, ESCWA consultant, underlined that renewable energy projects are always beneficial regardless of the changes in the prices of oil and gas, and that the choice between natural gas and oil is linked to the willingness of countries to reduce their emissions. He also stressed the importance of the energy mix, and that natural gas and oil will still be dominant in the coming 15 to 20 years. He added that the adoption of renewable energy is a long-term strategic option, and that the Arab region has a huge potential for renewables, especially solar energy, on the condition that economic feasibility studies of renewable energy projects are carried out based on a fair comparison with oil and gas. He concluded by stating that continuous dialogue is always needed in order to prepare the ground for decision-makers regarding the adoption of proper energy policies.

II. ORGANIZATION OF WORK

A. Venue and Date

16. The workshop was held at the Kuwait Institute for Scientific Research (KISR), Kuwait, on 11 June 2013.

B. Participants

17. The workshop was attended by a total of 43 participants, including members of the ESCWA Committee on Energy, and representatives of KISR and of the League of Arab States. The complete list of participants is in Annex II.

C. Evaluation

18. An evaluation questionnaire was distributed in order to assess the relevance, effectiveness and impact of the workshop. A total of 15 participants responded to the questionnaire, out of which 86 per cent rated the overall quality of the workshop as good to excellent. A total of 87 per cent rated the clarity of the presentations as good to excellent, and 93 per cent of respondents thought that the workshop provided a good to excellent opportunity for networking and experience-sharing. A total of 87 per cent of participants thought that the workshop met its objectives to a satisfactory to great extent. When asked about the need for follow-up to the results of the meeting, 93 per cent of respondents were positive.

Annex*

LIST OF PARTICIPANTS

A. ESCWA MEMBER COUNTRIES

Bahrain

Mr. Abdulaziz Abdulqader Saeed Ali
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* Issued as submitted.

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