SUMMARY OF WORLD ENERGY CONGRESS SIDE EVENT:

SUSTAINABLE FINANCE AND CARBON MARKETS:

NEW OPPORTUNITIES FOR THE GCC?

September 2019

The triennial World Energy Congress, one of the most influential energy events in the world, was hosted by the United Arab Emirates in Abu Dhabi.

This document summarises the key discussions that occurred during the Side Event, held on 12th September 2019, at this 24th World Energy Congress.

The discussions underlined that sustainable finance and carbon markets cannot be dealt with in silos, as isolated topics, but need to be part of a holistic approach to deal with climate change challenges. The opinions, ideas and recommendations shared during this first event of its kind also made clear that there is room for further exchanges, discussion and action.

Therefore, other events to explore these issues are planned by the organising committee.

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<u>Preliminary remark</u>: The Side Event was held under Chatham House Rules; therefore, no attribution of any comments can be made to specific individuals.

1. A combination of solutions is key to combat climate change in the countries of the Gulf Cooperation Council (GCC)

<u>Economic impacts of climate change actions</u>: All participants unanimously agreed that climate change action will **help assist economic diversification** and catalyse the energy transition that is already underway in the countries of the GCC. Climate action will also **create new business opportunities and new jobs for youth in the GCC**: the adoption of renewable energy technologies has created 11 million jobs worldwide at the end of 2018 (according to IRENA 2019).

<u>GCC</u> countries can foster this transition by creating a combination of solutions, including policy, regulations and removal of fossil fuel subsidies combined with sustainable finance and carbon pricing initiatives.

There was strong agreement on the need to create a sound policy and regulatory framework for climate change & energy. The types of policies and regulations listed as crucial include:

- Economy-wide or sector-specific **carbon reduction targets** to set a cap on emissions. This is an important enabler for a cap and trade system for emission reductions.
- **Prioritise action in sectors with high carbon footprints**, which in the case of GCC, including power and oil & gas sectors.
- Importance of having renewable energy and energy efficiency targets and supporting policies, as is the case in some GCC countries (see for example the UAE's Energy Strategy 2050).

- Importance of **removing fossil fuel subsidies at producer and consumer levels**. Doing so, would enable cleaner technologies to compete on a level playing field with fossil fuels. The recent progress made to remove fuel subsidies for diesel and petrol was cited as a positive example, but more needs to be done upstream at the production level.

There was also a strong recommendation on the need for GCC countries to set a carbon tax, with distribution of these revenues to those sectors most affected and in need of support for the energy transition. It was outlined that setting a carbon price would be a natural complement to fossil fuel subsidy reform and further enhance the economic case for additional investments in clean energy.

Once these enablers are implemented, it was agreed that there will naturally be greater demand for sustainable finance products such as green bonds, loans and sukuks (Islamic bonds).

2. Social and Economic acceptance and a just transition for oil and gas are key enablers of the energy transition in the GCC countries

Participants explained that it is crucial to foster social and economic acceptance of climate action and carbon pricing initiatives. Transparent and socially approved approaches to remove fossil fuel subsidies were tried and tested and could be applied to carbon pricing. For example, in Saudi Arabia, energy authorities use social surveys to reform electricity and water tariffs and are compensating low to middle income households. In Dubai, reforms to tariffs for electricity and water have been implemented since 2012, with transparent data and reporting on the impact it has had on reducing energy consumption. These efforts have been coupled with regular initiatives to raise awareness in communities on energy conservation behaviour, as well as efforts to stimulate the market to provide more energy saving devices at cheaper prices for consumers.

The Dubai Green Fund of AED 100 million: example of how to stimulate more social acceptance and provide economic incentives to people to install solar roof top and retrofit buildings with energy efficient technologies.

Ensuring an organized transition of the oil and gas sector will be key for the GCC countries to enable the energy transition. Oil and gas companies have a lot of legacy infrastructure that will need to be run for several more years and not just disappear overnight. The companies are already planning for a future with less demand for oil but will need financial and technological assistance for the transition. They will also need assistance to identify new business models in order to remain profitable. Oil and gas companies are looking to diversify into higher value petrochemicals, but these large integrated value chains are still based on hydrocarbons and vulnerable to oil price fluctuations.

The shift from old to new technology will require a lot of investment and part of that burden can be transferred to the economy in the form of a Carbon Tax to accelerate the transition.

The GCC countries would also need time and revenue visibility to ensure an orderly transition towards new clean technologies and infrastructure, as well as to explore new business opportunities. This will make them less exposed to the global transition away from fossil fuels.

3. Carbon pricing options for the GCC

<u>Placing a price on carbon would further incentivise and accelerate the development of clean energy in the region.</u> The key will be to **redistribute revenues to impacted sectors and communities**,

whatever form of carbon pricing is implemented in the GCC, to ensure they are able to use the funds to invest in cleaner technologies and initiatives to reduce greenhouse gas emissions.

Various options to place a price on carbon are available:

- Participants generally agreed that a GCC emissions trading scheme does not look likely in the foreseeable future due to the lack of carbon reduction targets, but instead some form of carbon taxation would be more favourable.
- One option that was discussed included placing a price on carbon at the 'well head' for oil
 and gas producers. They could thus collect revenues directly associated with the carbon
 footprint for oil and gas production to the point of export. It was explained that this would
 enable oil exporting countries to be better prepared for more proactive engagement with any
 importing countries that are setting a carbon price on imported oil and gas products.
- Setting corporate internal prices of carbon, or 'shadow prices', was also discussed as an
 option. The examples of international financial institutions and energy companies that are
 doing so and changing their strategies and investment patterns as a result were cited.
- It was also agreed that it is important to keep developing projects in the GCC for countries to be able to sell carbon credits as part of the Clean Development Mechanism (or whatever form it takes post 2020) or through voluntary carbon offset markets. This could also be extended further with GCC countries purchasing carbon offsets from other regions.

<u>Intensification of international cooperation is essential to implement carbon pricing.</u> The increasing urgency of global cooperation on climate action calls upon the importance of **building bridges between energy importers and exporters across regions**. A **cooperation between the GCC and the European Union (EU)** was highlighted as an important way to align self-interests and an increasing level of climate mitigation ambition.

Generally, there was support for the use of Article 6 of the Paris Agreement as a way of fostering such collaboration, with many supporting connections between the GCC and the EU. The work of the EU-GCC Clean Energy Technology Network could be one possible avenue for this dialogue between regions.

4. New business models, innovative financing solutions and incentives can foster the development of renewable energy, energy efficiency and Carbon Capture Storage and Utilisation (CCUS)

The importance of renewable energy, energy efficiency and CCUS was emphasized as critical for the energy transition in the GCC region.

• The importance of securing financing from both public and private sector was also cited as an essential mechanism requiring further emphasis.

The good credit ratings for power and utility companies in Saudi Arabia and the UAE was mentioned as an important enabler for them to leverage private sector investment into clean energy. Utility companies can leverage this by 'de-risking' key aspects of the projects. The growth of Renewable Energy Certificates and blockchain based currencies was generally welcomed as a new and innovative way of securing greater investment from the private sector (Dubai with the solar rooftop programme).

The emerging ecosystem of sustainable finance initiatives, as happening in the UAE under the Abu Dhabi Global Market, also provides an additional opportunity to leverage further financing for such

projects and initiatives. Guidance and clarity on taxonomies, disclosure and governance would support attracting more private investments in sustainable development topics.

There is optimism regarding the growth of renewable energy targets and supporting policies in the GCC. These policies have resulted in setting record low prices for solar Photo Voltaic (PV) and Concentrated Solar Power (CSP) with storage in the region.

The importance of stimulating demand for greener and more energy-efficient buildings was outlined. Building labelling schemes (like in Europe) would help drive increased demand for energy efficient buildings. The role for stronger appliance efficiency standards in combination with tariff reforms was also cited as the type of policies that can stimulate markets to supply more energy efficient products while increasing demand from consumers.

CCUS could be a technology that gives oil and gas companies from the region a competitive advantage. The Al Reyadah CCUS plant in Abu Dhabi, which captures 0.8 million tonnes of CO₂ per year from a steel plant is one such example already in operation by Emirates Steel, Abu Dhabi National Oil Company (ADNOC) and Masdar. The Uthmaniyah CCS plant in Saudi Arabia also captures 0.8 million tonnes of CO₂ per year. Given the large oil and gas fields in the region, there is already good geological knowledge of suitable sites, and thus plenty of potential for storing CO₂ from heavy industries (e.g. steel, cement) in the region. A carbon price would help make such initiatives more economical and help oil and gas companies to generate new sources of revenue, diversify economies and create new competitive business opportunities.

The capture and reuse of CO_2 in other industries, such as food and beverage, indoor agriculture, manufacture of chemicals and other materials could present additional commercial opportunities for business and industry. These types of 'closed loop' concepts and projects could be important niches for the GCC region to develop and a carbon price would support this further.

A low carbon economy that utilises carbon and hydrogen to create synthetic fuels is also of interest for GCC countries as it could build on existing infrastructure of hydrocarbons in the region.

Annex 1: Programme of Side Event and Organisations Represented by Attendees

10am: Welcoming words and introduction

- Gerard Mestrallet, Co-Chair of CPLC, Honorary Chairman of ENGIE and SUEZ
- Ludovic Pouille, French Ambassador to the UAE.

10.15-10.45am - Carbon markets

- Global context of Carbon Markets and Pricing: Highlights from 2019 State and Trends of Carbon Pricing & What carbon pricing could be in GCC's self-interest? (Grzegorz Peszko, Lead Economist, World Bank)
- EU Carbon Markets (Taina Sateri, Trade Counsellor, Delegation of the European Union to the United Arab Emirates)

10.45-10.50am - Q&A

10.50 - 11.20am - Regional Picture

- Emerging landscape of Green and Sustainable Finance (Philippe Richard, International Affairs Executive Director, Abu Dhabi Global Market)
- Regional tools and potential for carbon markets (Thomas Bosse, Dubai Carbon Centre of Excellence)

11.35-12.15pm - Panel 1: The challenge of decarbonization: what have we learned so far on issues of sustainable finance and carbon markets?

This panel will discuss the international and regional experiences of decarbonization and the role of sustainable finance (including carbon markets). It will explore the key successes and failures from these experiences and the economic, social and technical barriers that need to be overcome to scale up the solutions.

Moderator: [Tanzeed Alam, Managing Director, Earth Matters Consulting]

Panellists:

- Mr. Gerard Mestrallet, Co-Chair, Carbon Pricing Leadership Coalition
- HE Fahad Hussein Al Sudairi, Chief Executive Officer, Saudi Electricity Company
- Dr. Nasser Saidi, Chairman, Clean Energy Business Council MENA
- Dr. Waddah S. Ghanem, Senior Director Sustainability, Operational & Business Excellence,
 Emirates National Oil Company
- Mohammed Abdulkareem Al Shamsi, Acting Executive Director of UAE Water Aid Foundation (Suqia), Chief Officer Climate Change & Sustainability, Dubai Electricity & Water Authority

12.15-12.25pm - Q&A

12.25 -13.05pm - Panel 2: Opportunities for the future - profiling solutions.

This panel will discuss the emerging ecosystem of sustainable finance and carbon markets internationally and regionally. It will outline the growth and potential of innovative financing instruments and initiatives such as carbon credits and renewable energy certificates. The session will elaborate on the potential of these initiatives to help catalyse climate action, clean energy transition and create new economic opportunities in the GCC. The session will also explore the possibilities to create synergies with carbon markets in other regions of the world.

Moderator: [Tanzeed Alam, Managing Director, Earth Matters Consulting]

Panellists:

- Francesco La Camera, Director General, IRENA
- Philippe Richard, Executive Director International Affairs, Abu Dhabi Global Market
- Mohamed Abdel Qader El Ramahi, Director Asset Management & Technology Clean Energy, Masdar
- Grzegorz Peszko, Lead Economist, Environment, Natural Resources & Blue Economy Global Practice, World Bank
- Taina Sateri, Trade Counsellor, Delegation of the European Union to the United Arab Emirates
- Thomas Bosse, Head of Programmes, Dubai Carbon Centre of Excellence

13.05-13.15 pm - Q&A

13.15-13.20 pm - Closing Remarks – Gerard Mestrallet

Organisations represented by Attendees:

Abu Dhabi Power Corporation	ENOC
ADNOC	EUGCC Clean Energy Technology Network
Al Masaood	Finergreen
Aldar	First Abu Dhabi Bank
Apicorp	French Embassy UAE
Bangladesh Energy Regulatory Commission	Geocycle
Bollore	Investor Services
CA-CIB	KVA SAL lebanon
Carbon M	La Sorbonne Abu Dhabi
Consolidated Contractors Company	Masdar
Clean Energy Business Council	Ministry of Climate Change and Environment, UAE
Credit Agricole	Mph Global
Cma-Cgm	Mubadala
Consult Beacon	Nomadd
Dentons	Novotel
Dubai Carbon Centre of Excellence	Saudi Electricity Company
EAD	Saudi ARAMCO
Einentreprise	Streamd group
Emsolin	Société Générale
EWEC	TOTAL
ENGIE	Touch Point Consulting
EP2C Energy	UL trading

Annex 2: Photos from the event





Gérard Mestrallet, Co-Chair CPLC, Honorary Chairman ENGIE and SUEZ

Ludovic Pouille, French Ambassador to the United Arab Emirates



Close up (from left) – Gérard Mestrallet, *Co-Chair CPLC, Honorary Chairman ENGIE and SUEZ*; HE Fahad Hussein Al Sudairi, *CEO Saudi Electricity Company*; Nasser Saidi, *Chairman Clean Energy Business MENA*



All panellists from panel 1 (from left) – Tanzeed Alam, Managing Director Earth Matters Consulting (moderator), Gérard Mestrallet, Co-Chair CPLC, Honorary Chairman ENGIE and SUEZ, HE Fahad Hussein Al Sudairi, CEO Saudi Electricity Company, Nasser Saidi, Chairman Clean Energy Business MENA, Dr. Waddah S. Ghanem, Senior Director Sustainability, Operational & Business Excellence Emirates National Oil Company, Mohammed A. Al Shamsi, Chief Climate Change & Sustainability Dubai Electricity and Water Authority



Panellists from Panel 2 (from left) – Tanzeed Alam, Managing Director Earth Matters Consulting (moderator), Francesco La Camera, Director General IRENA, Mohamed A. Q. el Ramahi, Director asset management & Technology Clean Energy Masdar, Taina Sateri, Trade Counsellor Delegation of the EU to the UAE, Grzegorz Peszko, Lead Economist World Bank, Philippe Richard, Executive Director International Affairs ADGM, Thomas Bosse, Programme Director Dubai Carbon Centre of Excellence

Partners of the Side Event:











