Energy Policy and the Sustainable Development Goals (SDGs) – What is the Role of Directors?

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Introduction

Momentum is building more than ever before for a global energy transition to leave behind fossil fuels and move towards the sustainable use of clean energy alternatives, decarbonization. The signing of the 2015 Paris Agreement on Climate Change action in which almost 200 nations agreed to work together to limit the effects of climate change, and the adoption of the 17 Sustainable Development Goals (SDGs) by the United Nations General Assembly in 2015, embodied a global political and institutional response to climate change and expressed the collective will to work towards a sustainable and low-carbon future.

Countries including major Emerging Market Economies like China, India and others have created policy and mobilized resources to develop renewable energy infrastructure domestically, as well as internationally in some cases. Economics and technological innovation are supportive of the energy transition, with the low costs now possible in unsubsidized solar photovoltaic (PV) power deployments – in the region of 2 cents/kWh – of great benefit to project economics. The competitiveness of solar power increases the likelihood that large-scale solar power deployments will substitute natural gas, oil and coal power plants which currently account for over 60 percent of global power generation.

More recently still, efforts variously led by activists, universities, companies, investors and other groups have gathered momentum on the back of rapidly increasing global temperatures, accelerating concentrations of greenhouse gases and a more established scientific consensus. As a result, the challenges national policy makers, energy providers and corporate leaders must juggle to address growing demand, energy security, and climate change are becoming more and more urgent with each passing year.

Against this background, the authors offer their view on the key energy policy characteristics necessary for a successful transition away from conventional hydrocarbon-based energy sources towards cleaner alternatives and in so doing secure both SDG 13 on Climate Action and national priorities concerned with the provision of adequate, diversified and reliable energy sources. In the second part of the article, energy-related aspects of the U.N. Sustainable Development Goals are considered more broadly, with an eye for deriving practical and realistic recommendations for directors to consider with regards to their implementation.

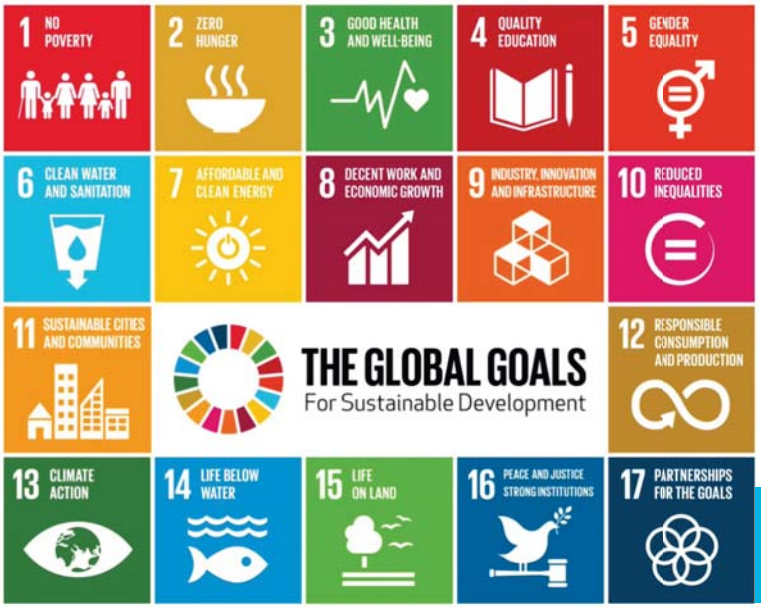

Figure 1: Summary UNDP Diagram of the 17 Strategic Development Goals (SDGs)

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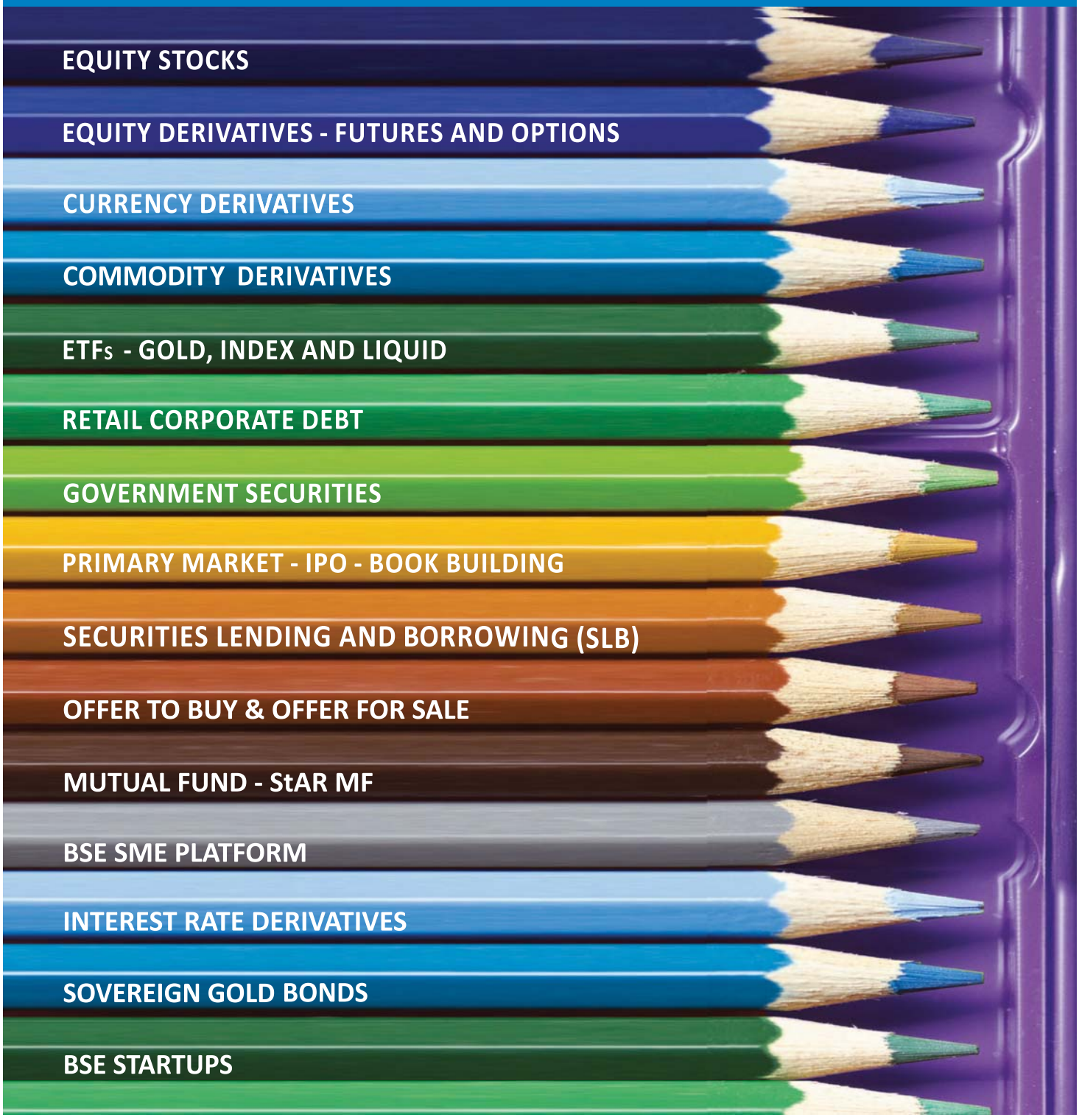

Policy-Driven Energy Transitions... Where Possible

The 2015 Paris Agreement in Article 2 states the long-term global objective of *"holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels."* In terms of the United Nations Sustainable Development Goals, mitigating the effects of climate change is captured in SDG 13 on Climate Action.

To accomplish this goal, or even come close, a fundamental transition to low-carbon national energy systems by a critical mass of nations is required. Such a change can only be effected where the energy policies of those nations are meaningfully integrated with the climate policy goal enunciated in the Paris Agreement.

Positive demographic and economic fundamentals in the Middle East mean that energy demand is expected to remain on a long-term growth trajectory. Secure and affordable energy supplies are critical in underpinning regional development plans and economic growth. Faced with the twin imperatives of satisfying rising power demand and moving towards environmentally less damaging fuels (to ensure citizens' welfare and quality of life as well as for reasons more broadly related to climate change) countries in the region have developed or are developing more balanced energy policies than in the past.

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The U.A.E. Energy Strategy 2050, launched in 2017, foresees that by 2050 the U.A.E.'s energy mix will consist of 44% clean energy, 38% gas, 12% clean coal and 6% nuclear. The policy of diversifying the energy mix enhances energy security by ensuring the availability of other energy sources, but also cuts carbon emissions through using clean alternatives and promotes economic diversification by establishing the market for environmental goods and services.

From a climate policy perspective, the key aspect of the transition from is ensuring that greenhouse gas emissions are capped or reduced, despite projected economic and population growth. Data from the International Energy Agency (IEA) now demonstrates that many countries have experienced economic growth while reducing carbon emissions and with the careful implementation of energy efficiency programs in the power generation and transportation fuels sectors and the use of carbon capture and sequestration it appears likely that the U.A.E. will be able to join their ranks.

The ultimate challenge however will be the development of the requisite capacity and competencies enabling individuals to perform in future low-carbon energy sectors. It is anticipated that the Industry 4.0 era will catalyze a cycle of continuous, sustainable growth and further promote the use of clean energy. In turn, Industry 4.0 will be largely dependent on the enhanced efficiency, automation and "smarter" energy consumption brought about by the Internet of Things (IoT) and Artificial Intelligence (AI). In relation to the electricity sector, research already points to a central role for the Internet of Things in improving energy utilization efficiency, coordinating the pooling resources for grid regulation, and facilitating interconnections among systems for power generation, transmission and storage. Other new disciplines for managing new technologies and systems are expected to emerge, as we have witnessed in recent years in the cyber security space.

Stakeholders who understand that in future jobs where knowledge and information drive effective decision making for sustainable businesses will not only invest in developing people; they will create eco-systems supporting effective talent acquisition development and retention.

United Nations' SDGs in the Field of Energy and the Role of Directors

Boards have a very complex role of being simultaneously entrepreneurial (risk taking) and exercising prudent control; sufficiently knowledgeable about the business whilst standing back from the day-to-day workings in order to retain an objective and long term view; sensitive to the short-term pressures whilst being informed on the longer-term implications; knowledgeable of the local issues whilst maintain clear understanding of the more global matters; and focusing on the financial performance whilst acting responsibly towards all stakeholders.

To this end, directors' knowledge of the United Nations' 17 Sustainable Development Goals must be more than adequate. Strategically, boards must understand the global drive towards the transformation which began in earnest at the 2012 United Nations Conference on Sustainable Development held in Rio de Janeiro, Brazil. Today's SDGs are more encompassing and try to tackle more holistically major matters including poverty, education, gender equality, clean water sanitation, climate action and other socio-environmental related goals.

Thus far, the link between the climate change mitigation goals (SDG 13) stated in the 2015 Paris Agreement has been discussed from the perspective of national policy, given the large-scale and concerted national and international efforts that will be required to transition the energy systems of countries. However, the efforts required to meaningfully contribute to the implementation of certain other SDGs are within the scope of activity of boards of directors and the companies they lead.

Boards and executives must work together firstly to understand the intent and the drivers for the goals to establish where they can collectively as an organization contributes. This will create a focus perhaps on a few goals.

For example, the goal of ensuring access to affordable and clean energy (SDG 7) is of central importance to the energy sector, given its mutually reinforcing relationship with reducing energy system carbon emissions. The extremely low costs of PV solar power make solar a suitable option where a meaningful contribution is sought towards reaching SDG 7 together with SDG 13 by 2030. Relatedly, the

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Sustainable Development Goal concerned with good health and well-being – SDG 3 – is concerned with the energy sector insofar as it supports the public health goal of reducing air pollution caused by internal combustion engines, coal plants and the burning of other fuels for energy-related purposes. In this case, also the linkages among SDGs are apparent, with the implementation of SDG 7 directly benefiting SDG 3 by reducing the severe impacts of air pollution caused by coal-fired power plants.

Investments in clean energy are even more relevant in the current economic climate in which investments by companies in extractive industries are undergoing increasing scrutiny. The risk of large carbon-intensive investments becoming "stranded assets", i.e., assets that have suffered unanticipated devaluations or conversion to liabilities because of environment-related risks, has resulted in investors demanding better reporting on the impact of corporate measures designed to keep climate change to 2 degrees centigrade. Improved reporting is necessary where investments run the risk of becoming stranded assets because of their long pay-back periods and high marginal costs.

Sustainable Development Goal – SDG 11 – is centered on promoting sustainable cities and communities.

The U.N. Principles for Responsible Investment, the Sustainable Investment Policy adopted by the Harvard Management Company (which manages the Harvard endowment) and policies adopted by many other corporates mandate due consideration of climate change, greenhouse gas emissions, and other social and environmental considerations in relation to the underwriting of investments. The adoption of similar policies would be an example of leadership of the business community by directors committed to support the transition towards a low-carbon future in their economies.

Another Sustainable Development Goal – SDG 11 – is centered on promoting sustainable cities and communities. From an energy-sector perspective, this goal is closely linked with the development or adoption of sustainable low-carbon transport solutions. Indeed, long-term fossil fuel outlooks are increasingly increased momentum behind electric vehicles, with the latest assessment by the International Energy Agency (IEA) reporting that 2018 was another record year for electric vehicles, with worldwide sales crossing 2 million. Delivery trucks and logistics sectors are increasingly becoming a focus for companies wishing to promote "green freight" in order to cut per-kilometer pollution and carbon emissions. For example, the logistics fleet of McDonald's U.A.E. has utilized biodiesel made from used vegetable oil to fuel its entire fleet as part of efforts to reduce greenhouse gas emissions. More recently, major Dubai-based international corporates such as Nestlé as well as local companies have rolled out fleets of biofuel trucks as part of efforts to reduce the environmental impacts of business operations.

Sustainable Development Goal 12 is intended to enhance responsible consumption and production and is synergistic with the high-efficiency and low-waste circular economy. Approaches giving effect to this goal include the implementation of waste-to-energy projects, the introduction of energy-efficiency programs, and general promotion of workforce and consumer education. Additionally, the development and implementation of metrics which determine the extent to which companies' products, services and investments promote SDG 12 (and other sustainability goals) potentially provides another opportunity for organizational guidance from directors. Researchers from the City University of New York and the Harvard School of Public Health have recently made the point that while current frameworks for measuring corporate sustainability may address the environmental impact of business activity at the facility level, scarce guidance is provided on assessing longer term impacts.

Beyond the above practical suggestions, perhaps the most important and difficult role directors can play is that of leading their organizations towards fully embracing the ethos of sustainability necessary for us to prosper in a low-carbon future.

Closing Thoughts

The energy policies in the world are having to change, and change fast with a world which is moving towards the application of sustainability principles driven through the UN Sustainable Development Goals. These SDGs provide a very purposeful framework for a set of goals that help governments, corporations and entities alike towards a better and more sustainable future. The energy industry and all those that are associated with it must be at the forefront of that change as their impact on sustainability is very significant. They play a role that can have a substantial positive impact in a relatively short period. Equally, this article has also explained where the risks of ignoring the efforts needed may have also very significant impacts on the bottom line of organizations. So, whilst there are clearly moral and ethical imperatives, there are also socio-economic as well as environmental drivers for corporations. Directors drive organizations' strategy. An organization in the energy sector or otherwise without an effective sustainability strategy will deny itself its full potential and will sooner than later face significant risk to its growth, profitability and longevity. Directors are the guardians and are the duty holders for the continued value proposition that organizations provide. Directors who fail to realize this in a world that has practically embraced these SDGs as the tenets of the business responsibility will surely be at some point held accountable at best as incompetent, and at worst grossly negligent.

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