Ensuring access to affordable, reliable, sustainable and modern energy for all

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The term 'crisis' is used all too frequently but unfortunately the word is often accurate, whether it's the COVID-19 global pandemic affecting us all or socio-economic crises that impact individual countries. The World Economic Forum reports that just recently, when business leaders were asked to identify the biggest risks of the coming decade, climate change was high on the list. Now that we are all faced with the immediate humanitarian crisis as a result of Covid-19, which has also quickly developed into an economic crisis, it is important that we don't lose sight of the longer-term risk that climate change poses to humankind.

The UN's 17 Sustainable Development Goals (SDGs) are amongst the most ambitious projects humanity has ever attempted. They represent our best hope of tackling the most serious challenges facing our societies and our planet. The investment required to meet the targets by 2030 cannot be provided by governments and NGOs alone. The private sector has a critical role to play if we are, collectively, to achieve the SDGs.

While many investors, corporations and financial institutions say they are committed to achieving the SDGs, capital is not flowing at the required speed to the countries where SDG investment matters most. In emerging markets alone, the UN estimates USD3.9 trillion per year will be required to reach all 17 goals by 2030. At the current rate of investment, the UN has calculated a gap of USD2.5 trillion per year.

Until now, there has been little data at an individual country or SDG level to identify the investment needed to meet the goals, and it has been difficult to identify where the opportunity to participate is greatest for the private sector. Our Opportunity2030 study aims to address this – providing investors and corporations who are serious about their commitment to the SDGs with a map of the potential investment opportunities across three of the most tangible, infrastructure-focused goals.

Our role in the SDGs

At Standard Chartered we are equally at home in the emerging economies that are most in need of investment and in the more developed economies that can provide that investment. We know we have a pivotal role to play in helping our markets realise the SDGs. We are playing our part to tackle climate change, having committed to facilitating and financing USD35 billion worth of cleantech and renewables between 2020 and 2025, with a focus on emerging markets. Alongside this, we have ceased financing new coal-fired power plants, will phase out our exposure to thermal coal by 2030, and are taking decisive steps to measure, manage and reduce the emissions from the activities we finance.

Beyond climate change, we have mobilised USD1 billion in microfinance, placed the world's first 'blue bond' and last year we launched our <u>first Sustainability Bond</u>, raising EUR500 million to fund projects aligned to the SDGs in emerging markets. And we are only just getting started. The private sector can, and must, do more, and we intend to lead the way.

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all

SDG 7 is of particular relevance to us in sub-Saharan Africa. Investing in clean, renewable energy sources is vitally important for combating climate change, while ensuring universal access to electricity is fundamental for providing the basic standard of living needed to provide good life opportunities. Our opportunity 2030 study focuses on measuring the finance needed to provide universal access to electricity. More than one in 10 people worldwide still lack access to safe, reliable power.

Universal access to an affordable electricity supply can help to alleviate poverty and is key to improving education, health, food security, income and living standards. Without it, an individual's chances of participating in sustainable economic development are drastically limited. For example, access to electric lighting helps children to pursue educational opportunities, which gives them a chance to provide a more secure future for themselves and their families. This access to education can increase social mobility, improve people's ability to find employment. This means that success in many other SDGs depends on everyone having access to reliable power.

The private sector is well established as the leading source of finance for power generation in most economies around the world (accounting for 80-100 per cent of power generation in developed markets). Thus, private investment is critical for reaching SDG 7, and it is vital that as much of this finance as possible is directed into clean energy infrastructure. In emerging markets, private investors provide around 45 per cent on average of total funding.

Some of the most compelling investment opportunities can be found in renewable-energy projects in emerging markets, where growing demand for new sources of reliable, clean and affordable electricity is greatest. In sub-Saharan Africa (SSA), it is becoming increasingly common for governments to use independent power producers (IPPs) to build new generating capacity. This benefits the economy by attracting necessary capital and expertise and can also offer attractive rates of return for investors in IPPs. In addition, because payment is made under long-term power purchase agreements, this type of investment can also provide certainty for investors. While emerging markets offer the potential for high returns there are also added risks, including payment in volatile currencies, and less-developed transport infrastructure which adds to the cost of construction.

The UN believes that progress towards universal access to electricity is accelerating, indicating that this important target can be achieved with enough dedicated resources. However, much more needs to be done. The share of renewable sources in the total global energy supply only increased from 16.6 per cent in 2010 to 17.5 per cent in 2016. This was despite international finance to support clean energy in emerging markets almost doubling across the same period (increasing from USD9.9 billion to USD18.6 billion). Recently, costs have been falling rapidly, particularly for onshore wind and solar power, often making them more affordable, which should pave the way for increased investment. Achieving universal access to electricity globally is an important step, but this alone will not be enough to achieve SDG 7.

A shift away from fossil fuel-powered electricity generation, towards clean renewable energy sources, will be needed to achieve this. Investors still have significant opportunities to contribute to SDG 7 by increasing investment to clean energy projects.

Investment potential in Sub-Saharan Africa

According to our research, the total investment needed in the power sector to achieve and maintain universal access to power across emerging markets by 2030 is estimated to be approximately USD9 trillion. Considering average private-sector participation rates of 45 per cent, the potential private sector investment opportunity in achieving universal access to power in emerging markets by 2030 is about USD4.2tn.

According to the OECD SSA has the lowest energy access rates in the world. Roughly half the population, 600 million people, do not have access to electricity. Our study of five countries in sub-Saharan Africa - Kenya, Uganda, Nigeria, Ghana and Zambia has revealed that just over US\$146bn is required to achieve

universal power access by 2030 for these countries alone. If international trends were followed almost US\$66bn of this would be expected to be contributed by the private sector.

While much of the developed world is substituting existing carbon energy sources for renewables, SSA is still ramping up its base load power to achieve universal access. Renewable energy plays a smaller role as most of the large-scale developments are in gas and hydro, but the investment potential is significant. A recent Bloomberg New Energy Finance report indicates that \$2.8 billion was spent on renewables projects in sub-Saharan Africa (excluding South Africa) in 2018. An interesting development is that smaller scale, off-grid renewable energy is making significant progress in reaching remote rural areas and this is largely being driven by private sector developers.

SSA has additional complexities which should be considered, not least of which is whether end users – and thus the countries - can afford to pay for the power. Of related concern are high levels of debt that have accumulated over the past decade leading to a recent appeal by African finance ministers to the IMF, World Bank and European Central Bank (ECB) for debt relief in relation to around \$44 billion in debt service payments this year. COVID 19 has accelerated matters but the broader debt levels have been increasing for some time.

As a potential solution, many sub-Saharan African countries have introduced legislation in the past decade to enable public private partnerships and are using this legislative framework to drive private investment in power. However, to date much of this has been investment in base load power rather than renewables. While there is no shortage of funding available for renewable energy, much of the recent debt financing in this sector has been provided by development finance institutions. There is room to increase the pool of lenders by structuring projects to facilitate the participation of commercial banks alongside DFIs. The World Bank and other multilaterals play an important role in this regard by enhancing borrower credit profiles through blended or viability gap financing and political risk mitigation. Despite the progress to date, achieving universal power access is slow because utility scale IPPs are expensive in absolute amounts and take several years from bid stage to delivery of power. The high cost of developing new transmission lines to reach often remote areas which have renewable energy potential (for example, high solar radiance or wind occurrence) but are far from power demand centres further adds to the cost and timeline challenges of utility scale renewable energy projects. In addition, governments are still exposed to foreign currency risk as the financing markets require power purchase agreements to be indexed to the debt currency, which is invariably USD. With the exception of South Africa, local financial markets in SSA currently do not have the capacity to provide the long-term local currency finance required for infrastructure projects without incremental foreign currency risk. There is a drive to develop local capital markets to the point where they can finance projects in local currency, however this process is slow and will be set back further by current economic conditions. Recent successes in Cameroon, where Standard Chartered facilitated local currency funding solutions in conjunction with the World Bank, and Kenya, where such structures are being developed, point the way to the future and should serve as successful templates for developers and lenders to emulate.

The off-grid or distributed power solutions mentioned earlier offer more immediate solutions for achieving universal power access in remote locations. These solutions typically make use of solar technology and are at the forefront of private sector renewable energy investments on the continent. On the back of electricity connections service providers have expanded their offering to include items like household appliances, internet connectivity, and financial services. All provided as part of a pay as you go package.

As these off-grid energy providers achieve scale they will increasingly look to consolidate operations and introduce strategic partners to take them to the next level – creating yet another avenue for private investors to play a role in achieving SDG 7.

As Covid-19 continues to unfold, and as everyone is focused on the immediate relief for those impacted and on the general economy, the subject of clean energy to support this agenda cannot be forgotten. Our motto should be to do no harm and to actively do good. The investments made today will preserve our planet for future generations.