Uniting against Poverty

BACKGROUND PAPER

FOURTEENTH INTERNATIONAL ENERGY FORUM MINISTERIAL MEETING

15-16 MAY, MOSCOW, RUSSIA

SUSTAINABLE ENERGY FOR ALL: WHAT WORKS AND WHAT NEEDS FIXING?

Key Insights:

- Universal access to modern energy services is essential for poverty eradication, sustainable development and the achievement of the MDGs.

- The need to address energy poverty remains overwhelming, despite the massive gains made in global access to modern energy services over the past twenty years.

- Business-as-usual policies are not sufficient to bridge the gap. Policy makers need to spark game changing initiatives to achieve universal access to modern energy by 2030.

- Energy policies need to support innovative approaches to off grid, mini grid and decentralized energy solutions to reach communities, households and enterprises that the grid will not reach in the short or medium term.

- When developing rural electrification programs, energy ministers need to consider questions such as operations and maintenance, role of the private sector, tariffs and subsidies, and capacity building and training.

- The cumulative investment required to achieve universal access to modern energy by 2030 is US$1 trillion, an average of US$48bn per year, more than five times the level of 2009.

- To bridge the investment gap, all available types and sources of funding will need to be tapped, including international funds, public-private partnerships, bank finance at multilateral, bilateral and local levels, as well as climate change-related funds.

- Universal energy access by 2030 requires strong political and sustainable financial commitments, good governance, appropriate regulatory frameworks, and strategic partnerships at all levels, and the integration of energy access into national development strategies.

- Governments therefore should lead the changes by inter alia implementing appropriate institutional capacity, learning from successful country experiences, building on the progress already underway as well as developing human resource capacities.

- Global challenges need global actions. All partners need to concentrate their efforts and work together. Combining strengths could create exceptional synergy that could make a real difference in the fight against energy poverty.

- Sustainable development must balance economic growth, social progress and protection of the environment. Efforts to eradicate energy poverty must, therefore, be technology neutral and technical solutions must be tailored to the conditions of each country.

- Another aspect of the integrated approach—and one that OFID support—is that related to the water-food-energy nexus.

Eradication of energy poverty—the 9th MDG:

Energy access is vital to support all aspects of development. If we consider the eight Millennium Development Goals (MDGs) established in 2000, none of them can be achieved on a sustainable basis without affordable access to electricity and to clean and efficient fuels.

In the words of UN Secretary General Ban Ki-moon; "Expanding access to affordable, clean energy is critical for realizing the MDGs and enabling sustainable development across the globe".

In recognition of the importance of energy for sustainable development and the achievement of the MDGs, the Third Summit of Heads of State and Government of OPEC Member Countries in November 2007 declared in Riyadh the Eradication of Energy Poverty as a common objective of all OPEC aid institutions, including OFID and called on these institutions to cooperate with the energy industry and other financial institutions to enhance this important endeavour.

Responding to Riyadh Declaration, OFID organized a workshop on Energy Poverty in 2008 in Abuja, Nigeria, where many financial institutions and energy related organizations including oil companies participated. The conclusions of the workshop were highly beneficial in identifying causes and remedies, and lead OFID to call for energy to be the missing MDG.

The role of energy in sustainable development was subsequently emphasized in numerous international forums, including the G8 Energy Ministers Meeting in Rome and the G20 Summit in Pittsburgh—both in 2009.

The 12th International Energy Forum Ministerial in Cancun Mexico, in March 2010, called for the international community to set up an additional ninth MDG, specifically related to alleviating energy poverty. They also called on all relevant stakeholders (including the energy industry) to step up their efforts and encouraged the IEF Secretariat to maintain energy poverty high on its agenda and future programmes of work.

Responding to calls from IEF Ministers, the IEF and OFID convened a symposium on energy poverty in in Vienna, Austria (November 2011), with the objective to investigate the most effective means to alleviate energy poverty and to review the roles of different stakeholders.

The challenge to eradicate energy poverty world-wide is indeed daunting. The latest figures on global energy poverty are staggering: 1.4 billion people—one in five globally—have no access to electricity, while some 2.7 billion people—nearly 40 percent of the world population—rely on biomass (wood, coal, charcoal, or animal waste) for

their basic needs. The practice of using biomass for cooking kills nearly two million people a year, most of them women and children, from respiratory disease caused by breathing toxic smoke.

Building momentum—global challenges need global actions:

In the last three years, the topic of energy poverty alleviation has moved up the international development agenda. In September 2011, the UN Secretary-General launched his "Sustainable Energy for All" (SE4ALL) initiative. The initiative aims at ensuring universal access to modern energy services, doubling the rate of energy efficiency and doubling the share of renewable energy in the global energy mix by 2030.

The UN General Assembly Resolution 65/151 designated 2012 as the "International Year of Sustainable Energy for All," recognizing that access to modern, affordable energy services in developing countries is essential for sustainable development.

In its 2013 resolution 67/215, the UN General Assembly emphasized the importance of long-term approach to global energy issues for sustainable development and for the elaboration of the post-2015 development agenda by unanimously declaring 2014–24 the "UN Decade of Sustainable Energy for All."

The SE4ALL initiative has brought together top-level leadership from all sectors of society including oil and gas sector, drawing on its global convening power. The initiative's high-level Advisory Board, co-chaired by the UN Secretary-General and the World Bank Group President, includes distinguished global leaders from the private sector, government, UN/intergovernmental organizations and civil society, including OFID's Director-General, Suleiman J Al-Herbish.

The global push by the United Nations for universal access to energy is part of the growing recognition that modern energy is crucial to achieving a range of social and economic goals relating to poverty, health, education, equality and environmental sustainability.

To maintain the momentum, tracking progress on the goals of SE4ALL is essential. Doing so will clarify where the initiative stands, how various actions are contributing to the three objectives, how much remains to be accomplished, and where more action is needed to achieve SE4ALL. To this end, in May 2013, SE4ALL launched a Global Tracking Framework with baseline energy data and suggestions for indicators. This will form a critical part of the initiative's activities in upcoming years.

Since its launch in September 2011, SE4ALL has received more than 100 commitments to action from governments, businesses, international institutions, and civil society.

Indeed, a growing number of governments, international agencies, non-governmental organizations and businesses are working to overcome energy poverty. At present, 83 developing countries have partnered with the initiative. Rapid Assessments/Gap Analysis have already been undertaken in about 50 countries, and in about 30 countries, action plans and/or investment prospectus are being prepared.

Universal access to energy needs game changing initiatives:

Electricity expansion growth will have to double to meet the 100 percent access target by 2030. However, universal access to electricity is not enough; energy poverty will not be fully overcome unless cleaner cooking solutions can be found for the one third of humanity that relies on traditional fuels to meet their heating and cooking needs.

It has become clear that business-as-usual policies are not sufficient to bridge the gap. We need to spark game changing initiatives. Not least, because energy is the key to wider social and economic development and, for millions, the path out of poverty.

Energy access funding presently seems to be focused on large-scale grid generation and distribution electricity infrastructure. This is suitable for tackling urban energy poverty, but not so much for remote rural areas where mini grid and off-grid solutions can cater effectively for local needs and may be more appropriate while being complementary to the main grid.

Therefore, in order to meet the objective of achieving universal access to modern energy services by 2030, we need to support innovative approaches to off grid, mini grid and decentralized energy solutions to reach communities, households and enterprises that the grid will not reach in the short or medium term. These options can supplement grid electrification strategies in a country, creating demand for greater electricity use as it becomes available.

For the mini-grids, financial and operational issues are crucial to the long-term sustainability. Questions such as operations and maintenance, role of the private sector, tariffs and subsidies, and capacity building and training are essential to consider when developing rural electrification programs.

This will also require energy entrepreneurs, enterprise and consumer financing using predictable, replicable financing models to ensure that energy services reach people. In this approach people are clients in a market that needs to be attended, rather than beneficiaries who will be attended to through fully grant based solutions.

Similarly, business based models will be needed to scale up access to cleaner fuels, mechanical power and the services that they provide while national energy infrastructure continues to develop.

Synergies to mobilize action and deliver results:

Energy poverty reduction is impossible to achieve without adequate access to investment and finance. According to estimates from the International Energy Agency, the cumulative investment required to achieve universal access to modern energy by 2030 is US$1 trillion, an average of US$48bn per year, which is more than five times the level of 2009. The majority of this investment is required in sub-Saharan Africa and South Asia. Mini-grid and off-grids solutions account $26 billion annually. To provide universal access to clean cooking facilities by 2030 would require investment of $95 billion, i.e. around $5 billion a year.

Meeting this goal will require dramatic improvement in efforts by all stakeholders: governments, the private sector, local communities, civil society and international organizations.

To bridge the investment gap, all available types and sources of funding will need to be tapped, including international funds, public-private partnerships, bank finance at multilateral, bilateral and local levels, as well as climate change-related funds. In addition, it is crucial to develop viable commercial models that can effectively attract and channel financial resources.

One of the primary ways in which SE4All drives action is through the formation of High Impact Opportunities (HIOs). HIOs are categories of action that have been identified as having significant potential to advance the objectives of SE4ALL. HIOs provide a platform for stakeholders from the private sector, public sector, and civil society to work together on various High Impact Initiatives within the same general area that advance sustainable energy within the framework of the larger global initiative. This helps to leverage SE4All full convening power.

The key to success will be cooperation and coordination. Private sector and institutions, among other partners, can joint their efforts to address the issue of SE4ALL, through coordinated investment and innovative social programs.

Clear and specific polices and strategies:

The availability of capital is a necessary but not sufficient condition to deliver access to modern energy services. Strong political will, long-term government commitment, good governance and appropriate regulatory frameworks are prerequisites to delivering the financing needed for energy poverty eradication.

In addition, because investment in big-ticket, long lead-time energy projects require a wide investor base, private and public sectors together with development finance institutions (DFIs), need to combine their different strengths.

In its own work in fighting energy poverty, for example, OFID always seeks to develop innovative business models that leverage their own resources and involve the private sector, with its efficiency and flexibility. Public-private partnerships constitute one such attractive business model. This, again, emphasizes the need to create a policy environment that is conducive to the participation of private investors.

Universal energy access by 2030 requires strong political and sustainable financial commitments, strategic partnerships at all levels, and the integration of energy access into national development strategies. Only concerted action by the whole international community can help accelerate energy access for all.

OFID joins the battle:

Universal access to energy is a high priority agenda for OFID and its Member Countries. As a Member of the SE4ALL Advisory Board, OFID is proud to be a lead partner in this pioneering effort and is committed to using all resources at its disposal to step up its interventions both at an advocacy and an operational level.

Building on the momentum which energy poverty has gained in recent years, OFID has transformed its words into action on the ground and moved from "finding" solutions to "funding" solutions. In the three years 2011-2013, the share of energy projects in OFID's total operations reached 27% on average, with a total value of $955 million, compared to a cumulative 20% since inception.

These funds are supporting a broad range of projects, from large, capital-intensive investments such as power plants and grid expansion to local, small-scale renewable solutions, where speed is of the essence.

The strategic framework for these activities is OFID's 5-year-old Energy for the Poor Initiative (EPI), which is funded through a revolving endowment of US$1bn, a sum pledged by the institution's supreme body, the Ministerial Council, in its June 2012 Declaration on Energy Poverty. This amount to be leveraged through cooperation with partner organizations, such as the World Bank, the members of the Coordination Group, and other DFIs, and the energy industry.

In the following four examples of practical work undertaken by OFID to improve energy access:

The first is an innovative scheme **off-grid** for the distribution of solar units to poor households in Tanzania and Kenya, two of the most severely energy-poor countries in sub-Saharan Africa. Under its recently launched Energy Access Grants Program, OFID has joined forces with the Shell Foundation to support social enterprise d.light to help fund the African rollout of the scheme. By the end of the project, almost 85,000 units had been sold, empowering the lives of some 424,000 people, more than triple the original

target. Another crucial element of the project was the training programs that were organized for distributors and brand activators to help them develop more professional business skills and become more effective after sales services.

The second example is **on-grid** wind project in Pakistan. In a joint effort with the Islamic Development Bank and the Asian Development Bank, OFID, through its Private Sector Facility, is supporting the construction of two wind farms which will add 100 MW of power to the national grid. The successful implementation of this project is expected to bring in further investment for the development of more wind farms in the country. On the financing side, it is worth highlighting the co-financing synergies between the development finance institutions and the local commercial banks involved.

The third example involves boosting renewable energies and energy efficiency in a **mini-grid** in Cambodia. OFID provided a grant to the Renewable Energy and Energy Efficiency Partnership (REEEP) to support hybrid and energy efficiency power plants in Cambodia. The project includes upgrading two diesel based power plants supplying rural mini-grids with renewable energy and energy efficient technology. One of the plants will use rice husks as a fuel source, in parallel with diesel. The other involves replacing old inefficient diesel generation sets with three more energy efficient ones with different load capacities which can be synchronized in a way that lowest fuel consumption can be ensured by adapting their use to the shifting load curve.

The fourth and final example concerns increasing access through **energy efficiency** measures in Ghana. In a joint effort with the International Finance Corporation (IFC- a member of the World Bank Group) and other participating Development Finance Institutions (DFIs), OFID, through its Private Sector Facility, is financing the conversion of an existing 220 MW light-crude-oil and gas fired simple cycle power station, to a combined cycle thermal power plant. The conversion will allow the plant to generate an additional 122 MW of power without any incremental fuel consumption.

These four projects - the solar lights in Africa, two wind farms in Pakistan, renewable energies and energy efficiency in Cambodia and revamping thermal power plant in Ghana - are all practical examples of initiatives that have benefited from OFID commitment to work against energy poverty.

Balancing the equation:

Sustainable development must balance economic growth, social progress and protection of the environment. The socio-economic development of the developing countries cannot be compromised by considerations for CO2 emissions. Achieving universal access by 2030 would increase demand for fossil fuels by 0.8% and CO2 emissions go up by 0.7%. Despite this increase, emissions per-capita in those countries achieving universal access are still less than one-fifth of the industrialized nations in 2030. Efforts to eradicate energy poverty must, therefore, be technology neutral.

Another aspect of the integrated approach—and one that OFID support—is that related to the water-food-energy nexus. Until relatively recently, traditional development solutions treated water, energy and food security separately. But they need to be seen as interdependent. Just as water is needed for almost all kinds of energy production, so energy is required to treat and transport water. Both water and energy are essential for growing and processing food.

Such interdependence can only increase in the future. For this reason, OFID has placed the water-food-energy nexus at the heart of its 2016-2025 strategic plan, in the firm conviction that only an integrated, holistic approach can address the challenges across the board, while compromising none.

Synergies for progress:

From a conceptual point of view, the challenges for universal energy access are known, the goodwill is there, and the technical solutions exist and known. But, the main hurdle is implementation on the ground. In this respect, OFID considers the planning, institutional and human capacity building, and innovative business solutions among others are the basis of the implementation of a general framework to energy poverty eradication. This framework should be supported by government policy.

Countries need to set a higher priority for energy access projects in their National Plans and in their Poverty Reduction Strategy actions. Projects aiming at developing income generating activities in both rural and urban areas are particularly important. This approach has the main advantage to set targets and to help identify relevant projects with a high impact on development.

It is clear that good governance, enabling institutions, a predictable legal framework and effective markets are indeed necessary at the national level as well as the regional level. Topics related to reforms are not easy at the national level and they become even more complex at the regional level. Regional approaches are also indispensable to facilitate trans-border projects, energy transit or pooling projects.

Towards this aim, governments should lead the changes by inter alia implementing appropriate institutional capacity, learning from successful country experiences, building on the progress already underway as well as developing human resource capacities.

No one size fits all. Technical solutions must be tailored to the conditions of each country. These include: boosting cross-border power trade, tapping the potential of increased energy efficiency, opting for centralised as well as decentralised options, scaling up successful pilot projects for remote rural population, considering all available sources of primary energy: renewables as well as petroleum energy sources

including natural gas or LPG. All of these technical solutions are efficient only if they are operated in an appropriate legal and regulatory framework as described earlier.

In addition, the scale of the task is much bigger than the efforts of any one organization alone. All partners need to concentrate their efforts and work together. Combining strengths could create exceptional synergy that could make a real difference in the fight against energy poverty.

It's all about collective actions for speed and scale-up. In the words of UN Secretary-General Ban Ki-moon; "alone you can go fast; together we can go far."