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Uniting against Poverty

2nd IEF - OFID Symposium on Energy Poverty

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Global initiatives and regional cooperation to eradicate energy poverty

Draft Background Paper

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1 - Introduction

Despite considerable effort and a number of laudable initiatives, little progress has been made in reducing energy poverty in recent years. Lack of access to modern energy services still burdens nearly two and a half billion people and continues to impede the achievement of the Millennium Development Goals. Existing projections suggest that, unless strong measures and long-term policy commitments are taken, the situation will persist and deteriorate in many regions of the world in the coming decades, particularly in Sub-Saharan Africa more than in developing Asia where some countries have made notable progress in recent years in improving access to modern energy services.

Responding to a call from Ministers, the 1st IEF Symposium on Energy Poverty was held in Johannesburg, South Africa, (December 2009) with the objective to investigate the most effective means to alleviate energy poverty and to review the roles of different stakeholders. Participants noted that "access to modern energy services is one of the cornerstones to reducing poverty and a key element in achieving the MDGs" and called on the IEF to ensure that the key messages from the symposium were transmitted to the 12th IEF Ministerial meeting (Mexico, March 2010). The Johannesburg participants also called for fresh impetus and more widespread support for the "Energy for the Poor" initiative launched by King Abdullah at the Jeddah Energy Meeting (June 2008) and supported by the G20 leaders.

At the 12th IEF, Ministers noted that "the fight against energy poverty has been unsuccessful so far, with 2.5 billion people still lacking access to modern fuels for cooking and heating and 1.5 billion people without access to electricity, a situation which inhibits social, human and economic development". Endorsing the conclusions of the first IEF Symposium, Ministers stated "that reducing energy poverty should be added as the 9th Millennium Development Goal", 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.

OFID has demonstrated a substantial commitment to the eradication of energy poverty in developing countries. These efforts have been enhanced in response to the mandate provided by the Third OPEC Summit of 2007. OFID financial assistance works through a variety of public and private sector windows, helping to improve access to energy in the service of economic and social development.

The 2nd IEF Symposium on Energy Poverty, in partnership with OFID, gathers participants from developed and developing countries, representatives from governments and industry, multilateral and bilateral organisations, finance institutions, and aid agencies to discuss how to address this crucial issue and identify ways and means to help eradicate energy poverty.

The purpose of this paper is to provide background considerations on key topics to be discussed at this 2nd IEF-OFID symposium on energy poverty. The debates that will take place at this symposium will help the IEF to prepare recommendations for the 13th IEF Ministerial in Kuwait (13-14 March 2012).

2 - Status and prospect of energy access

Energy poverty may be defined as "having no physical access to clean, reliable and affordable energy services to satisfy basic human needs such as cooking, and heating". Other definitions might encompass lighting, communications and productive uses as basic human needs. Fuel poverty is a related but discrete concept which refers to the inability of households with low income to afford the energy they require despite the availability of modern fuels.

Energy poverty is a multi-dimensional issue derived from economic, financial and operational factors, relating to both demand and supply of energy.

In a recently released report (WEO 2011, early excerpt, October 2011), the IEA found that 1.3 billion people have no access to electricity, around 20% of the global population, and 2.7 billion people rely on the traditional use of biomass for cooking, around 40% of the global population.. More than 95% of the people lacking access to modern energy services are in either Sub-Saharan Africa or developing Asia, and 84% live in rural areas. Unless we act quickly and decisively, this issue will persist and may even deepen in the longer term.

The related health effects of energy poverty result in an estimated 1.5 million premature deaths per year, mostly among women and children affected by household air pollution due to inefficient biomass combustion and poor ventilation. Premature deaths from household air pollution are higher in number than those attributed to malaria and tuberculosis.

The consumption of modern energy per capita in the poorest countries is less than one-sixth that of developing countries. Developed countries account for about one-fifth of the world's population, and consume almost half the primary energy traded globally. Residential electricity consumption in sub-Saharan Africa, excluding South Africa is roughly equivalent to the consumption of New York City. In other words, 19 million inhabitants of a single developed city consume the same quantity of electricity as a population of 800 million on the other side of the world. Viewed from another angle, total installed generating capacity in sub Saharan Africa (excluding South Africa) is about 30 GW less than that of Norway although the population of the region is 150 times as large.

The lack of access to modern energy services is a serious barrier that gravely inhibits economic, social and human development. It:

- Impedes productivity and impairs a community's ability to develop and prosper financially

- Limits the education level, restricts the opportunities available to rural students, and may even discourage students from attending school

- Poses a severe health risk and impedes the administration of appropriate modern medical care

- Impacts women disproportionately. Biomass is usually collected by women. This lengthy and tiresome process prevents older women from carrying out more fruitful tasks and causes many young women to miss out on the opportunity of attending school.

Without access to modern energy services, the poor are deprived of opportunities for economic development and improved living standards. Modern energy services provide lighting, cooking, heating, refrigeration, transportation, motive power and electronic communications that are indispensable tools for increasing productivity, creating enterprises, generating employment, earning income, and accessing safe water and sanitation, as well as basic health and educational needs.

3 – Energy poverty alleviation, the missing MDG

At the 12th IEF in Cancun ministerial delegations and industry leaders declared that energy poverty alleviation should be added as the ninth MDG. Indeed, energy poverty alleviation is intimately tied to the achievement of all MDGs, as the causes of energy poverty are inextricably linked to the causes of general poverty. Energy poverty is both a symptom and an effect of general poverty; it is difficult to solve one without addressing the other. Energy access is a key reference point in the inter-related issues of poverty alleviation, environmental sustainability, climate change, and economic development and as such is related to the MDGs.

Expanding access to modern energy services for the poor is essential for achieving the MDGs, as it will contribute to:

- Reducing poverty and creating jobs by facilitating income-generation, reducing hunger and increasing agricultural productivity and entrepreneurial opportunities (MDG 1)

- Empowering females by liberating women and girls from time-consuming tasks, freeing time for education and economic activity (MDGs 2 and 3)

- Improving health conditions by reducing physical labour required of women and children, and eliminating the household air pollution associated with 1.5 million premature deaths annually (MDGs 4, 5 and 6)

- Promoting clean energy solutions that can contribute to low-carbon development (MDG 7). According to IEA, achieving universal access to modern energy services by 2030 would increase CO_2 emissions by only 0.7%, a modest impact compared to a scenario which leaves 1.3 billion people without electricity and 2.7 billion relying on traditional use of biomass.

While the alleviation of energy poverty is not a panacea to global poverty, no nation has reduced its poverty levels without increasing its energy usage. Of course, a reduction in energy poverty alone will not accomplish the MDGs but the MDGs are unlikely to be met without addressing energy poverty.

4 - Overcoming the barriers to energy access

The lack of access to modern forms of energy is a major barrier to economic development. Energy access is crucial to enhance economic and social development, reduce poverty, and contribute to international security. Significantly increasing access to modern energy services in developing countries requires strong and immediate action. Yet, despite current efforts, progress in delivering energy access is still inadequate.

Providing energy access is not a technological issue, in the majority of cases the technology is already available. In addition to investment and access to appropriate financial schemes a global political commitment is needed, at national, regional and international levels to accelerate progress of the energy access agenda. The major factors that need to be in place to unlock access to modern energy are related to the necessary policy and institutional frameworks; technology transfer and diffusion; and a lack of human capability and capacity. None of these impediments are insurmountable.

In its recently released report, the IEA estimates the cumulative investment required to achieve universal access to modern energy by 2030, at $48 billion per year, which is more than five times the level of 2009. The majority of this investment is required in sub-Saharan Africa. Although the investment required for universal access represents less than 4% of global energy investment, meeting this goal will require dramatic improvement in efforts by all sectors of society, governments, the private sector, local communities, civil society, international organisations and the world of academia and research. All available types and sources of funding will need to be tapped, international funds, public-private partnerships, bank finance at multilateral, bilateral and local levels, microfinance, loans, innovative financing schemes and targeted subsidies.

Smart and well targeted subsidy schemes can extend energy access for the poor. To be cost-effective, efficient and useful for rural and poor people, energy subsidies should assist the poor in gaining access to modern energy sources, while providing business incentives to serve rural and poor consumers.

Currently energy access funding seems to be focused on large-scale electricity infrastructure, which is suitable for tackling urban energy poverty, but not so much for rural areas where off-grid solutions that cater effectively for local needs may be more appropriate. The main sources of financing include the World Bank Group, regional development banks (Asian Development Bank, African Development Bank and Inter American Development Bank), the OPEC Fund for International Development, developed and developing country governments, aid and development agencies and the private sector. The United Nations institutions (UNDP, UNIDO, UNEP…) are particularly active in helping develop schemes for end user finance.

Energy poverty reduction is simply unthinkable without adequate access to investment and finance. However, the availability of capital is not sufficient condition to deliver energy access. Governments are expected to create the appropriate policies, regulations and institutions to facilitate energy access. An enabling environment, including capacity building and institutional strengthening and an appropriate investment climate are crucial to delivering adequate financing for energy access.

5 – Global political commitment and multifaceted cooperation

Although the priority given to energy poverty has still not reached a level commensurate with the scale of the problem, international momentum to overcome the barriers that impede progress towards universal access is now increasing.

The energy access agenda is becoming an institutional priority for the United Nations. The UN General Assembly has declared 2012 as the “International Year of Sustainable Energy for All” and in a report released in 2010, the UN Secretary General’s Advisory Group on Energy and Climate Change (AGECC) called for a global commitment to the ambitious goal of “universal access to modern energy services by 2030”. There is growing support for making universal access to modern energy services a priority for international cooperation.

Building on the conclusions of the UN AGECC, two high level conferences were recently held with the objective to facilitate dialogue and mobilize political support for the energy access agenda and to accelerate progress towards the goal of providing energy access for all; the first one in Vienna (June 2011) and the second in Oslo (October 2011).

Outcome of these gatherings will be presented to the G20 Summit (Cannes, November 2011), the COP17 Summit (Durban, November 2011) and the UN Rio+20 Summit (Rio de Janeiro, June 2012).

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.

International cooperation is needed in capacity building, knowledge management and dissemination, and in developing tools and indicators to measure progress. Governments have a key role to play in providing the enabling environment by strengthening national policy and institutional frameworks, encouraging market incentives, and mobilising financing and public-private partnerships.

Ensuring universal access to modern forms of energy by 2030 requires the implementation of an international framework and a detailed roadmap with interim targets on a country by country or on a regional basis; it also requires concrete mechanisms for mobilizing the investment and for facilitating technology and knowledge transfer. The adoption of national policies and concrete targets and programmes for modern energy access is important. Countries with strong strategies and national targets have proved to be more successful in delivering improvements in energy access than others, even in Africa.

6 - Conclusion

Access to sustainable sources of clean, reliable and affordable energy has a profound impact on multiple aspects of human development. Expanding access to modern sources of energy helps reduce poverty and gender inequality, improve health conditions and education, and serves not only to promote economic growth but also to mitigating the effects of climate change.

Universal access to modern energy services requires collective international solutions and adequate funding. Expanded international recognition, political will and government commitment at national, regional and global levels will play key roles in addressing the issues of poverty alleviation and facilitating access to modern energy services. Dedicated funds, sustained international effort and continual assessment of progress are required to accelerate energy access for all. Developed countries are expected to commit to mobilising funding and bringing assistance to poorer countries, while developing countries need to create a stable and enabling policy environment that stimulates and sustains investment.

The UN goal of “universal access to modern energy services by 2030” is ambitious but achievable, with the right policies. Technology is available and the financial requirements represent only a small percentage of overall energy investment. The energy access agenda is gaining global support at international and national levels. Achievement of this goal needs the implementation of a comprehensive and coordinated action plan including practical and effective mechanisms on financing, national and local capacity building and technology transfer. Intermediate goals for access to modern energy services at national levels supported by specific plans, targets and monitoring tools are necessary components of this effort.