Access to Energy for the Poor:

The Clean Energy Option

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Executive Summary

A dual focus on increasing access to energy services for the world's poorest and promoting clean sources of energy is a win-win scenario for development and the environment. Thus far, initiatives to increase energy supply in developing countries have not necessarily reached the poor, while initiatives specifically to increase energy access for the poor have not fully taken advantage of clean energy technologies. It does not have to be this way. Energy access for the poor and an increase in clean energy technologies are mutually reinforcing goals.

As a development bank, the World Bank could support clean, decentralized projects for energy access in developing countries. However, the Bank's current lending and its proposed Energy Strategy do not go far enough to support this shift. The World Bank's new Energy Strategy should support clean energy access by setting clear definitions and metrics for defining energy access and focusing its lending on projects that achieve these metrics with an emphasis on decentralized renewable energy and energy efficiency.

Over 20 percent of the world's population is without access to electricity and nearly 40 percent are still relying on traditional biomass for heating and cooking. Increasing access to modern energy services for the world's poorest – both for basic and productive uses – is a critical development issue. Increased access to lighting and basic utilities, water pumping, improved cooking fuels, and cleaner fuels for heating could significantly support progress towards achieving the Millennium Development Goals. Increased access to energy is important for issues of gender equality, as the burden of energy poverty disproportionately impacts women, who often need to spend large amounts of time on subsistence activities like collecting firewood. As this report shows, a number of initiatives are currently underway – internationally, nationally, and locally – to increase access to energy services. These initiatives prove that energy access and clean energy can go hand in hand.

Rooftop solar panels in rural India.

At the same time, moving global energy use towards clean energy pathways – energy that is truly clean, renewable, and safe, and not just less dirty – is critical for the poor because these sources of energy protect the environment and natural resources locally and do not compromise public health. A clean energy transition is also critical to limiting the most severe impacts of climate change, which will disproportionately affect the poor. Clean energy technologies include zero or low carbon technologies with greenhouse gas emissions an order of magnitude lower than conventional alternatives that do not have additional adverse social and environmental impacts through their lifecycles. Transmission and distribution and energy policies must support these source technologies to support a true clean energy transition.

The report highlights the following facts regarding clean energy access:

- Increasing access to energy is critical to supporting human and economic development, through the direct provision of energy services for basic needs, by supporting productive uses, and also by creating jobs.

- Fossil fuels and other conventional energy sources have negative externalities, including pollution and public health impacts, and fossil fuel extraction has been shown to correlate with higher levels of poverty, child mortality and malnutrition, civil war, corruption, authoritarian governance, and gender inequality. Clean energy sources benefit ecosystems and the environment and help protect natural resources that poor communities often rely on.

- Clean, decentralized renewable energy is often the most appropriate means of providing holistic energy services in rural areas that support both economic and social development, and these decentralized energy services can be more reliable than conventional grid based energy for providing energy access.

- Clean energy for access is economically feasible in comparison to conventional technologies, particularly for areas at a distance from the grid. The cost of decentralized, renewable energy can be less expensive than conventional, grid-powered electricity for areas at a distance from the grid.

- Improving demand-side, or end-use, energy efficiency (for example, by using more energy efficient lighting or appliances) can be one of the most cost effective ways of providing energy services.

- New research in India shows that people living in rural communities

are able and willing to pay for clean, reliable energy services.

- While there is increased interest in expanding energy access in a number of countries, to date, large-scale initiatives in developing countries focused on increasing energy access could take greater advantage of the opportunities of decentralized renewable energy and energy efficiency.

The barriers to making a shift to renewable energy and energy efficiency often include an assumption that clean energy is automatically more expensive. However, the true costs of using conventional energy, including public health and environmental externalities, are often not incorporated into pricing of energy options. Existing national and international policies and frameworks often favor fossil fuels and large, centralized energy systems. Finally, alternative energy sources often face a lack of financing, particularly to address the upfront costs associated with efficiency and renewable energy sources.

The multilateral development banks could play a significant role in funding the transition to a healthier energy future – both in terms of increased energy access and a transition to clean energy. As an influential development bank, the World Bank, in particular could play an important role in an energy transition, but only if the institution truly embraces the idea that it should focus on closing the gap in financing clean energy options and make a commitment to increasing energy access.

The World Bank Group is currently revising its Energy Strategy, which serves as a guide for the institution's energy investments, and the two pillars of the Bank's new energy strategy are set to be energy access and low carbon growth. While these pillars could orient the Bank in the right direction, a strong Energy Strategy document will need to include clear metrics that will lead the institution to shift its portfolio towards clean energy and energy access projects.

The report's findings on the World Bank's energy access portfolio include:

- Only 9 percent of the World Bank Group's energy portfolio in FY 2009 and 2010 targeted increasing energy access for the world's poorest. Forty percent of the financing labeled energy access by the World Bank Group in the FY 2009 and 2010 did not meet the study's metrics for energy access.

- Of the 9 percent of World Bank projects that the analysis found targeted increased access for the poor, 76 percent of those utilized clean energy in the form of new renewable energy or energy efficiency.

- Not a single World Bank greenfield, or previously undeveloped, fossil fuel project targeted energy access for the poor.

- With less than one tenth of the energy portfolio targeting access and only 30 percent of its energy portfolio funding new renewables and energy efficiency, the Bank is not in fact prioritizing energy access and clean energy in its lending at the moment.

Our recommendations for the World Bank Group include:

- **The World Bank Group's energy lending should focus on increasing energy access for the poor through clean, decentralized energy sources.** As this report shows, clean, decentralized energy sources and energy efficiency are appropriate, affordable means for increasing access to energy. The World Bank should focus its energy lending on increasing clean energy sources – those sources without negative environmental, health, development, and social impacts – for the populations that currently lack electricity and lack access to modern energy.

- **The Bank should clarify its definition and criteria for 'energy access,' focusing on the world's poorest and increase its level of ambition with regards to funding energy access projects with the aim of reaching the poor.** The World Bank Group should make it clear that its priority is to provide access to energy services to the billions of people currently without access to electricity and modern fuels. Concurrently, the World Bank should do a better job at specifying and disclosing the expected outcomes from its energy projects that will directly benefit the poor. The World Bank should require projects to clearly identify targeted consumers (direct beneficiaries) for energy projects, which would help to better gauge its progress on energy access for the poor, and should consistently monitor and report back on actual project energy outcomes to ensure the poor are benefitting.

- **The World Bank Group should stop lending for fossil fuels except in extreme cases where there is clearly no other viable option for increasing energy access to the poor.** As this report shows, the negative impacts of fossil fuels, large hydropower and nuclear energy have negative impacts to the climate, the environment, and public health. The World Bank Group's energy lending should focus only on clean energy options such as energy efficiency and clean renewable energy, which can support increased energy access and do not have negative impacts to the climate, the environment and natural resources, or public health.

Tackling the related problems of energy access for the poor and transitioning to a global clean energy economy are not small tasks. To advance towards goals of universal energy access and a truly clean energy pathway, all relevant actors, including governments, those in the energy industry, and development banks will have to take steps to change policies, approaches, and actions. The World Bank could take a positive step forward by making a clear commitment to advance these goals.