EXPLOITING THE FULL POTENTIAL? COSTS-EFFICIENCY AND IMPACTS OF RWANDA'S ELECTRICITY ACCESS ROLL-OUT PROGRAM

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Overview

More than 1.3 billion people in developing countries are lacking access to electricity (IEA 2011). By many, providing access to electricity is seen as a precondition for sustainable development and the achievement of the Millennium Development Goals (MDGs, UN 2005, 2010, Guruswamy 2011). Based on such assumptions, the Sustainable Energy for All initiative (SE4All) is currently set up to channel activities for achieving universal access to electricity by 2030. The United Nations General Assembly has declared the years 2014-2024 to be the Decade of Sustainable Energy for All. However, the investments required to achieve this goal are enormous – IEA (2011) quantifies that additional investment needs amount to some 650 billion US Dollars additional to spending in a business as usual scenario. Obviously investment needs depend crucially on the technology chosen for electrification. On-grid electrification represents here the upper bound in costs but at the same time also offers clearly the highest capacity and enables a wide range of energy services. Low capacity solutions like Pico-PV kits or solar home systems imply substantially less costs.

Against this background, we assess cost-efficiency and socio-economic impacts of the Rwanda Electricity Access Roll-Out Program (EARP), one of the most ambitious electrification interventions world-wide endowed with a budget of almost 380 Mio. USD.

References

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