

Adopting electricity prepayment billing system to reduce non-technical energy losses in Uganda: Lesson from Rwanda

Abstract:

Uganda is contemplating adopting an electricity prepayment billing system (EPBS) as an intervention to reduce non-technical energy losses. To provide more insight on EPBS a study was formulated to assess potential benefits of the EPBS in reducing power theft; understanding how EPBS operates and evaluating the possibility of EPBS adoption in Uganda. Rwanda provided a good case study considering its successful implementation of EPBS. Successful adoption of EPBS in Uganda will depend on capital availability, proportion of EPBS targetable customers, energy use and revenue for those being targeted; and enforcement of a deterrent penalty for those apprehended stealing power. Highlights ► We assessed the possibility of Uganda adopting electricity prepayment billing system (EPBS). ► EPBS could be adopted by the power distributors provided benefits surpass costs. ► EPBS will only succeed in curbing power theft if deterrent laws are enforced. ► Government should provide financial support to power distribution concessionaires. ► Rolling out of EPBS need to be sequenced to allow capturing important lessons.