

Early stage support to energy projects

Energy & Environment Partnership challenges

Technical innovation, project development and business models
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Technical Innovations (Pilots, Feasibility)

- **Vanadium Redox Flow Battery (RSA) and 8MW PV + 8MWh storage (RWA) –Business model?**
- **Thermoelectric stoves- missing link Cooking/Access**
- **Wave energy, Energy Cyclone tower, Cellulosic ethanol**
- **Thin film PV for greenhouses, Industrial Biogas (RSA)**
- **Solar/biomass hybrid minigrids**

- **Requires also new business model**
- **Might require policy change**
- **Alignment with national priorities/policies required?**
- **RBF challenges**



Business models

- **Mobile PAYG, Lease-own, Minigrid tariffs, Peer marketing (Tupperware)**
- **Attractive to customers (vs. current expenses)**

Challenges

- **Set up operations and product designs for scale up**
 - (2000 USD mobile payment module on 20W panel??)
- **Revenue collection (cash vs mobile money)**
- **Databases, webpages, marketing**
- **Delays: equipment import, recruitment/training**
- **Unit prices: GSM card vs Bluetooth/USB**



Project development

- EEP Africa has 2 Windows: Pilot and market creation
- Innovation required, not plain-vanilla Feasibility studies

Challenges:

- Permits, Plots, land leases
- PPA agreements (chicken-egg problem)
- MOUs: Lead/Local partner financing: How to ensure?
Conditional letters?
- Critical: Length of application process, can some steps be omitted or carried out in parallel?



- **Consultant bias (optimistic evaluation and scoring)**
- **RBF: Allow advance payments? Flexibility in Milestones**
- **Additionality: what is reasonable IRR?**
- **Energy efficiency too profitable, beneficiary too prospering**
- **(mitigated by grant/loan blending)**
- **Training: Pragmatic or idealistic, Brain Drain**
- **Market distortion: Accept/reject all or beauty competition**
- **Alignment with national policies or disruption?**
- **National coordinators' role**
- **Confidentiality of applications**
- **Requirements on dissemination and peer support**
- **Additional deliverables:**
 - **Graduation/Due Diligence report**
 - **Post-graduation financing documents, last MS=loan application**

