Deploying Energy Storage in Africa: Market Structure, Policy and Pricing

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Storage: State of Evolution

- Huge Potential on and off Grid
- Utility Scale (e.g. Pumped Storage) / Small Scale
- Still Expensive
- Disposal Issues

Generic Issues

- Taxes / Import Duties
- Mandates: Pros and Cons
 - Accelerates Deployment
 - Pros and Cons of Technology Mandates
 - Could Lock-in Old Technology in Rapidly Evolving Field
- Subsidies, Cross-Subsidies and Affordability

On Grid Options

- High Voltage Applications
 - Competitively Bid or Grid Provided (e.g. ancillary services)
 - Pricing
 - Locational vs. Socialized
 - Bundled vs. Unbundled
 - Complement to Utility Scale Solar or Wine
 - Pricing Issues
 - Unbundling Capacity and Energy

On Grid Options (Cont.)

- Low Voltage Applications
 - Pricing Intermittent Resources Is Essential for Storage
 - Time Blind Pricing vs. Time Sensitive Pricing
 - Net Metering vs. Market Rates
 - Perils to System Revenues?
 - Allocating Responsibility for Costs of Grid
 - Grid Defections?

Off Grid Options

- Making Intermittent Resources Reliable
- Affordability Issues
- Centralized or Decentralized Applications
 - Mini Grid Options
 - Individualized Battery Charging