DAEMs (Distributed Autonomous Electric Microgrids): Platforms For Sustainable Development

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Two Energy Paradigms



Centralized



Distributed

Benefits Of Solar Microgrids

- **♦** Small carbon footprint
- Less transmission Loss
- **♦** Nanogrid management efficiency
- **♦** Local control of resources = entrepreneurship
- Solar cost savings

So Why Aren't Microgrids Everywhere?

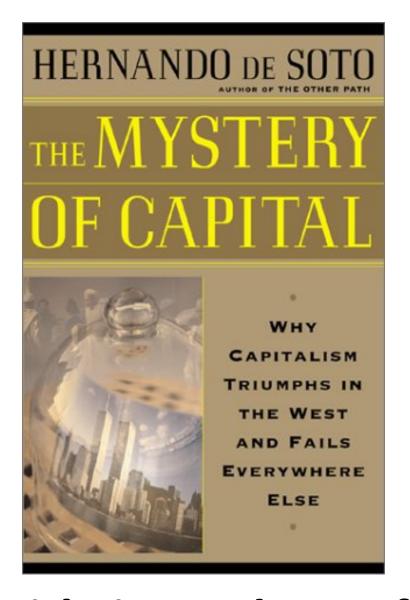
So Why Aren't Microgrids Everywhere?



Centralized Project Finance

- Engineering costs
- Investment bank fees
- **♦** Multi-decade tariff guarantees
- Political risk insurance
- **♦** Corruption

The Trust Problem



When Title is Hard to Enforce

Blockchain and Smart Contracts



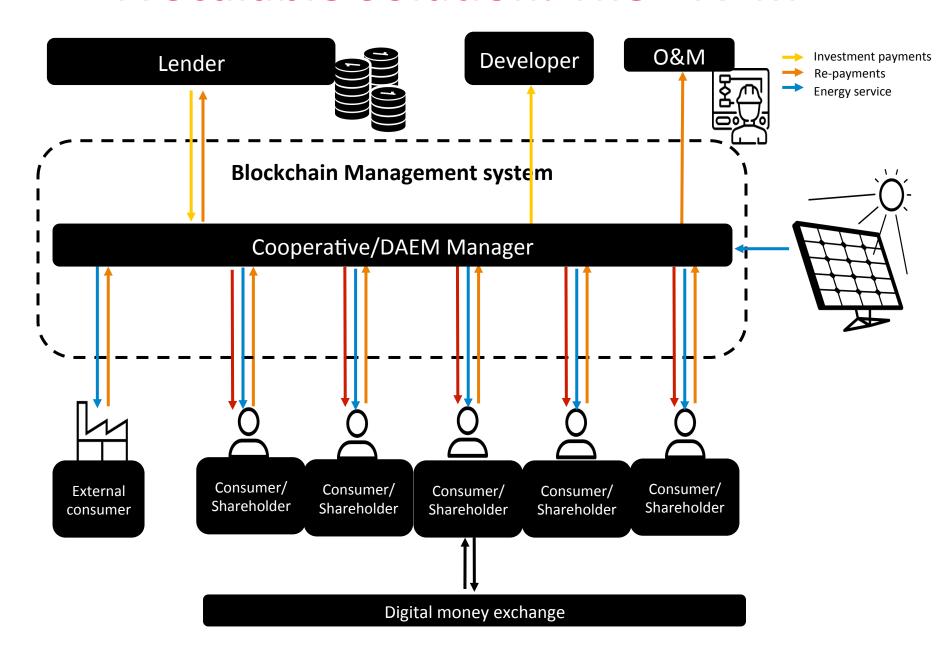
Decentralized Rights Management

Smart Devices + Digital Money

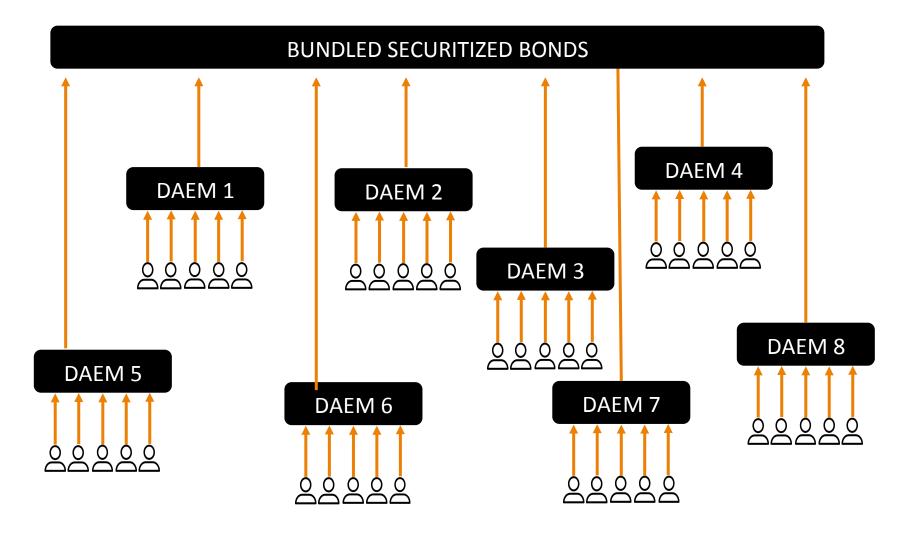


M-Kopa's Prepaid Home Power Model

A Scalable Solution: The DAEM



DBS: DAEM-Backed Securities



Accessing World Cap-and-Trade Markets

MIT DCI's DAEM Project

- **♦** First Phase: Native American communities
- **♦** Partners: GE Power, IFIs, microfinance firms
- Solving a legal challenge with a sovereignty model
- **♦** Shifting control of local resources to local users
- **♦** Extensible platform for bottom-up economic development
- ◆ Next phases: Developing countries, municipalized lighting districts, public housing, SME industry services

Any Questions?



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