

# Asia Clean Energy Forum 2018 Deep Dive Workshop

## Developing Sustainable Mini-grids

Jeffery Dickinson

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**CDM  
Smith**

# Background

- ❑ USA based private engineering and program management firm with over 70 years of global experience innovating solutions to improve infrastructure in the water, waste and energy sectors
  
- ❑ Company and Staff have extensive experience with mini-grids
  - Indonesia, USA, Nepal & Cambodia
  - Feasibility, Design/Engineering, Bus/Fin Packaging & Oversight
  - RE based generation, Main grid integration & “Smart/Hardened”

# Indonesia Projects: Millennium Challenge Corporation

Company	Location	Technology	Customers
PT Long Beliu Tau Energi PT Sinang Puri Energi PT Teluk Sumbang Energi	East Kalimantan	PV/Battery 1,273 kWp	478 households
PT Mikro Kisi Sumba	East Nusa Tenggara	PV/Battery 492 kWp	856 households
PT Karampuang Multi Daya	West Sulawesi	PV/Battery 598 kWp	784 households
PT Puriver Sejahtera Indonesia	East Sulawesi	PV w/ grid 804 kWp	1,097 households
PT Kemakmuran Mentawai Hijau	West Sumatra	Biomass Gasifier 700 kW	1,239 households

# Using Private Sector Practices to Create Public Purpose Entities

Partnership among private companies, enabled communities and interested government agencies can provide the foundation for a sustainable enterprise

- ❑ Project developers bring knowhow (generation/distribution/O&M) often lacking in small communities and government agencies
  - Equipment manufacturers, Engineering, System integrators
- ❑ Private sector companies typically have higher thresholds for governance and reporting requirements
  - Government mandated reporting, Legally binding governance practices
- ❑ Private sector companies can more easily access traditional financing
  - Banks, Commercial partners, DFIs

# Opportunities and Challenges on the Horizon

- ❑ Public Private Partnerships can play important roles in relatively small distributed projects
  - Not just money; planning, engineering and service collaborations
  - Creating pipelines of viable projects
  
- ❑ Ground level practice needs to align private sector commercial realities along side high level Government policy
  - Mis-alignment can create road blocks at the ground level
  
- ❑ Insistence upon international engineering standards and suitable material and equipment will improve project sustainability and operational cost over the long run

# Thank You for Attending Today's Event

## Additional Information Available Upon Request

**CDM SMITH - WWW.CDMSMITH.COM**

- Jeffery Dickinson – Lead Renewable Energy Specialist  
Email: Dickinsonja@CDMSmith.com  
Mobile: +62 812 9078 1079 (plus WA), +1 603 630 2473