Solar PV Industry in the Philippines
Opportunities & Challenges

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Key Market Segments

- Utility Scale –
  - 1 MW installed in CDO
  - 837+ MW applications
  - 368 MW SESC's approved
- Roof Top / Net Metering
  - 1MW++ including 570+KW in ADB
  - 300+ KW Rooftop in Batangas, 206+ KW Car Park in Laguna plus various residential and commercial roof top installations
- Off Grid –
  - 70,000+ small solar home systems
  - Service contracts awarded in NPC-SPUG Areas

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Current Status - Off-Grid

- DOE very vocal about encouraging private sector to invest
- Very high cost of energy from fossil fuel fed generator sets
- Heavily subisidized by the National Government
- Lack of energy supply in SPUG Areas
- Less political issue vs utility scale grid-tied
- Activities also initiated by the LGU's on their own
- Incentives not clearly defined in the RE Act
- No petition yet from NREB to ERC in terms of IRR

Key Market Segments - Off-Grid

- National Power Corp. - Small Power Utilities Group (NPC-SPUG) Areas
- NPC Qualified Third Party Areas (QTP)
- On/Off Grid / Captive
- Embedded

Key Market Segments - Off-Grid

- National Power Corp. - Small Power Utilities Group (NPC-SPUG) Areas
  - NPC-SPUG is mandated by law to undertake the electrification of areas not connected to the main transmission grid, also referred to as Missionary Areas
  - The government has made serious attemps to encourage Private Sector Participation in the uplift of energy supply in these areas
  - Currently heavily subsidized by the government
  - Mini-grids powered by fossil fuel generators

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Key Market Segments - Off-Grid

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Key Market Segments - Off-Grid

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Key Market Segments - Off-Grid

- National Power Corp. - Qualified Third Party (QTP) Areas
  - QTP Areas were created where local franchise cannot provide energy services
  - Franchise owners will have to “waive” rights to distribute
  - QTP Area becomes “self contained”power generation and distribution area

Key Market Segments - On/Off-Grid/Captive

- Commercial tourist sites in islands and remote areas
  - Tourism sector is expected to continue to rise with the government push
  - Resort hotels are rising in off-grid areas, both for existing destinations and new destinations
  - Almost all are using gensets for 100% of the requirements, 24 x 7
- Big agri/poultry companies in off-grid and on-grid areas
  - Blend with existing and planned Biomass and genset facilities

Key Market Segments - Embedded

- Commercial Missionary Areas – e.g. communication equipment, etc
- LGU Small Missionary Areas (Self-Powered Communities)
  - Barangays with 20 - 50 household clusters – SPC's through micro-grids
  - Scattered households in remote barangays – e.g. Amore Project, DOE Rural Electrification Program
  - LGU Disaster Mitigation equipment – e.g., solar lamp posts

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Example: Key Market Segments - Embedded

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Current Go-to-market Models

Current Go-to-market Models

- NPC-SPUG and QTP
  - Direct local presence – e.g., HQ, Joint Venture, Mgt. Contract, etc.
  - Developer License required for PPA
  - As EPC to local developer
  - As direct supplier to local developer
  - As financial partner to local developer

Current Go-to-market Models

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Current Go-to-market Models

- On/Off-Grid Captive
  - Direct local presence – i.e., same positioning as roof top/net metering
  - As supply chain partner – e.g., master distributor for key components
  - As EPC or direct supplier to local integrators
  - As Financial partner to local integrators

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Current Go-to-market Models

- Missionary – Solar Homes / Microgrids LGU's
  - In collaboration with local NGO's and foreign institutions for direct to LGU purchase/donation
  - As supplier/partner to qualified local vendors (accredited per government policy on procurement)

Issues and Challenges

- High supply chain cost because of lack of scale
- High financing cost in the country, VAT
- Still unclear government incentives for off-grid
- Expected high administrative cost
- Uncertainty of returns for off-grid and micro-grid
  - financial soundness of small coops
  - Local politics
  - Private sector participation is still limited

Opportunities

- Supply chain opportunity for distributors
- Country expected to be “Investment Grade” so funding will get easier and cheaper
- Economically viable even without incentives
- Good local partners on the ground
- Numerous progressive LGU's who wants RE
- The private sector customers are moving quietly regardless of the government incentives
- The inevitable will happen

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- Philippines Solar Power Alliance
- Founded in 2010 as response to the RE Act to represent the solar energy sector in crafting that Implementing rules and regulations through the National Renewable Energy Board (NREB)
- Around 30 members and growing
- Local and international companies
- Manufacturers, developers, integrators, EPC's, DU's
- Solar PV players, only 1 in Thermal
- Old energy players and start-ups

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PSPA – Members Profile

- Manufacturers
  - Sunpower, Sanyo/Panasonic, Sharp, Schneider Electric, Test Solution Services, Conergy, *LG*
- Project Developers – Grid and SPUG
  - Enfinity, Sunconnex, Youil, Transnational
  - Phil. New Energy, Cepalco, Team Energy
- Integrators – Rooftops and Off-grid
  - Enfinity, Transnational
  - Maschinen and Technic, Beyond Building Energy, Intensity, Unisolar, Propmech, Sasonbi, Emulsified, Energy Logics, SURE, S&W Power

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PSPA – Members Profile

- EPC
  - M+W, MIESCOR
- Missionary Off-Grid
  - SURE, Unisolar, Machinen & Technic, Intensity, Team Energy
- Solar Thermal
  - EdwardMarcs
- Supply Chain
  - Enfinity

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Other Players

- SMA, IBC Solar, Phoenix Solar, Schletter
- Suntech, Trina Solar, Yingli, Sungen
- Samsung, Hanwa
- Solar Frontier
- Canadian Solar

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- Major working groups
  - Developers / Utility
  - Net metering
  - Off-grid
- Advocates use of solar energy
- Local expertise build up
- Represents industry in government and private matters, local and international
- Is preparing a 10 year solar PV Roadmap

Thank you very much!

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