

Renewable Energy Opportunities In Nigerian Commercial And Industrial Space



*“ A Private Sector View on
the Market for Industrial Self-
Supply in Nigeria”*

23rd -Mar-2020

Nayo Tropical Technology Ltd.

Generation Capacity —

Decentralized: 15 GW

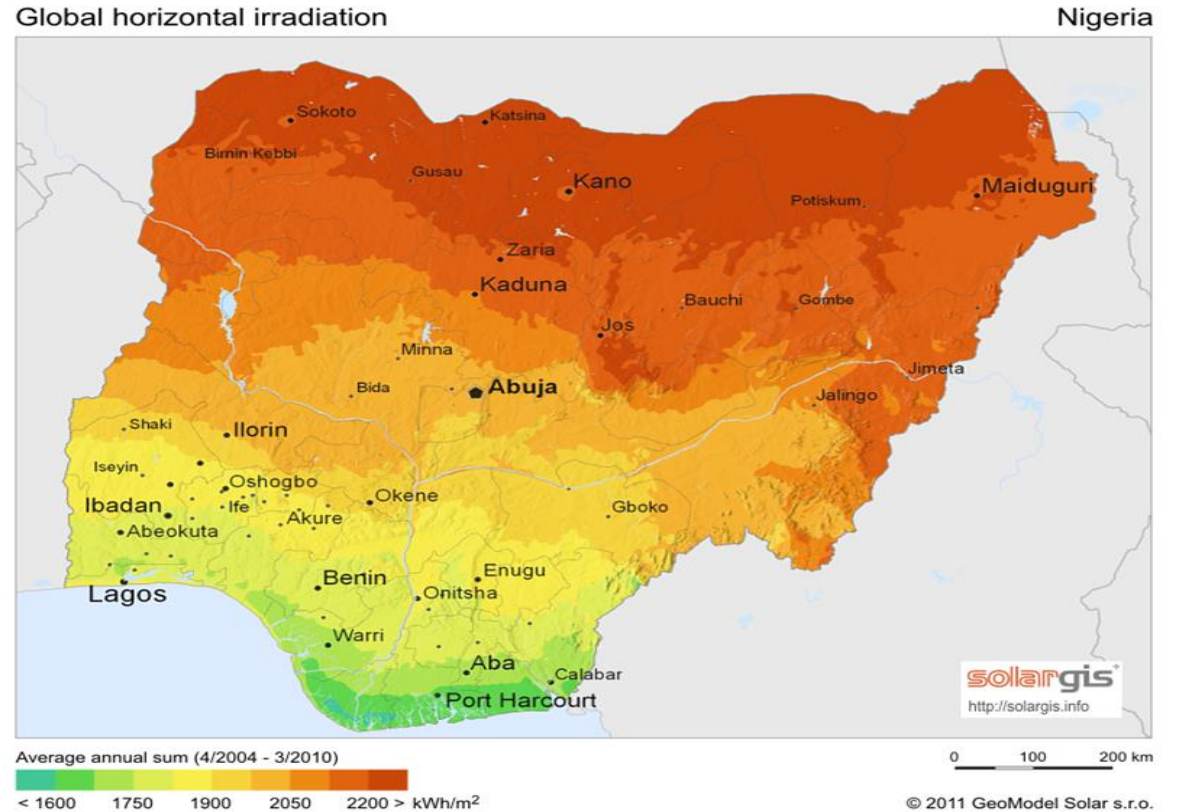
Grid: 12 GW

Estimated Population: 200 Million

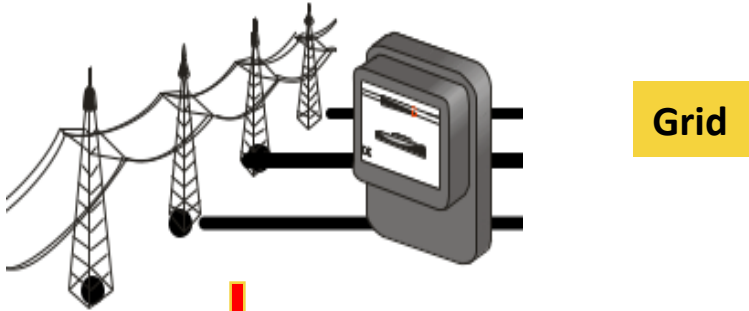
— Cost of Electricity

Diesel/Petrol: 0.25\$ -0.45\$/kWh

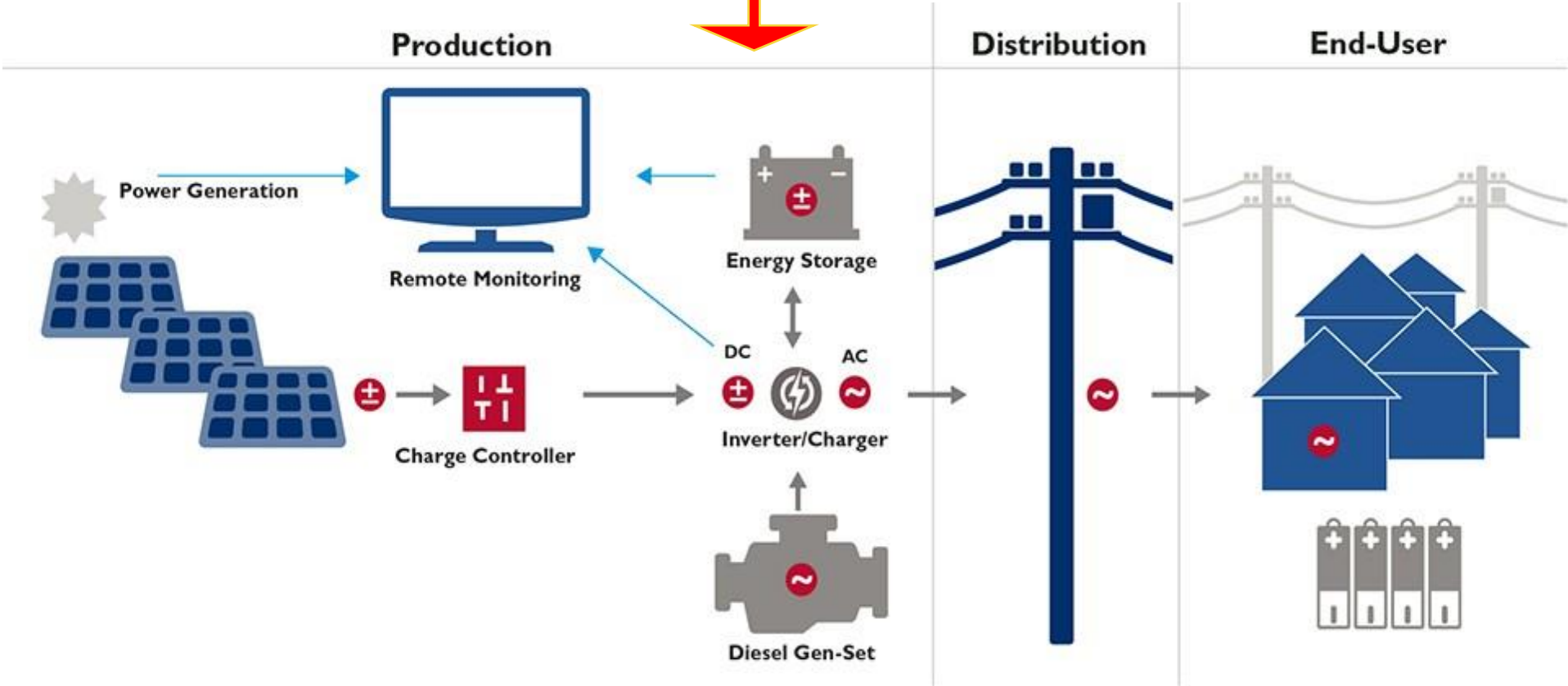
Grid: 0.09\$ -0.14\$/kWh



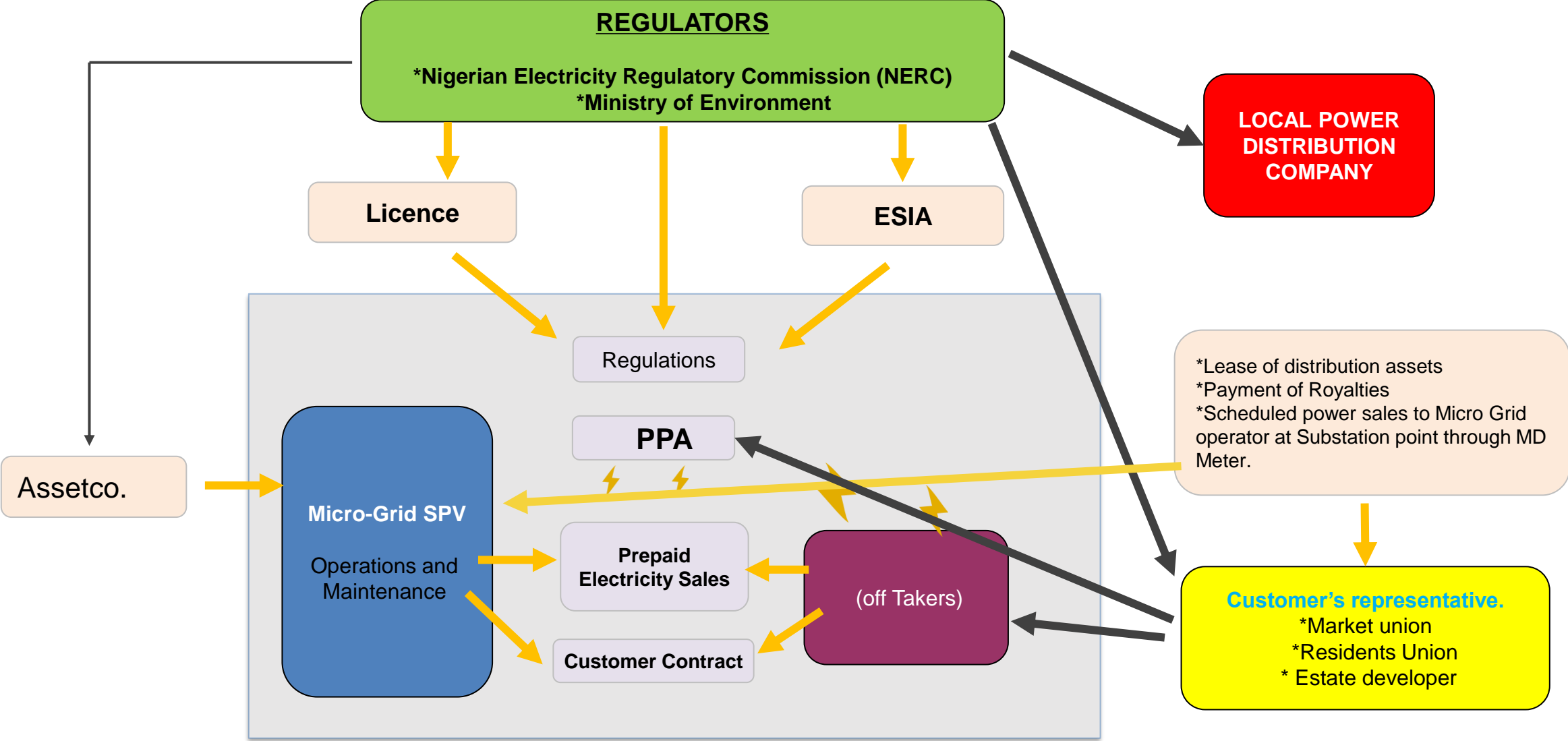
Interconnected Micro Grid



Optional Power Inflow From Grid



SLD of Interconnected Micro grid



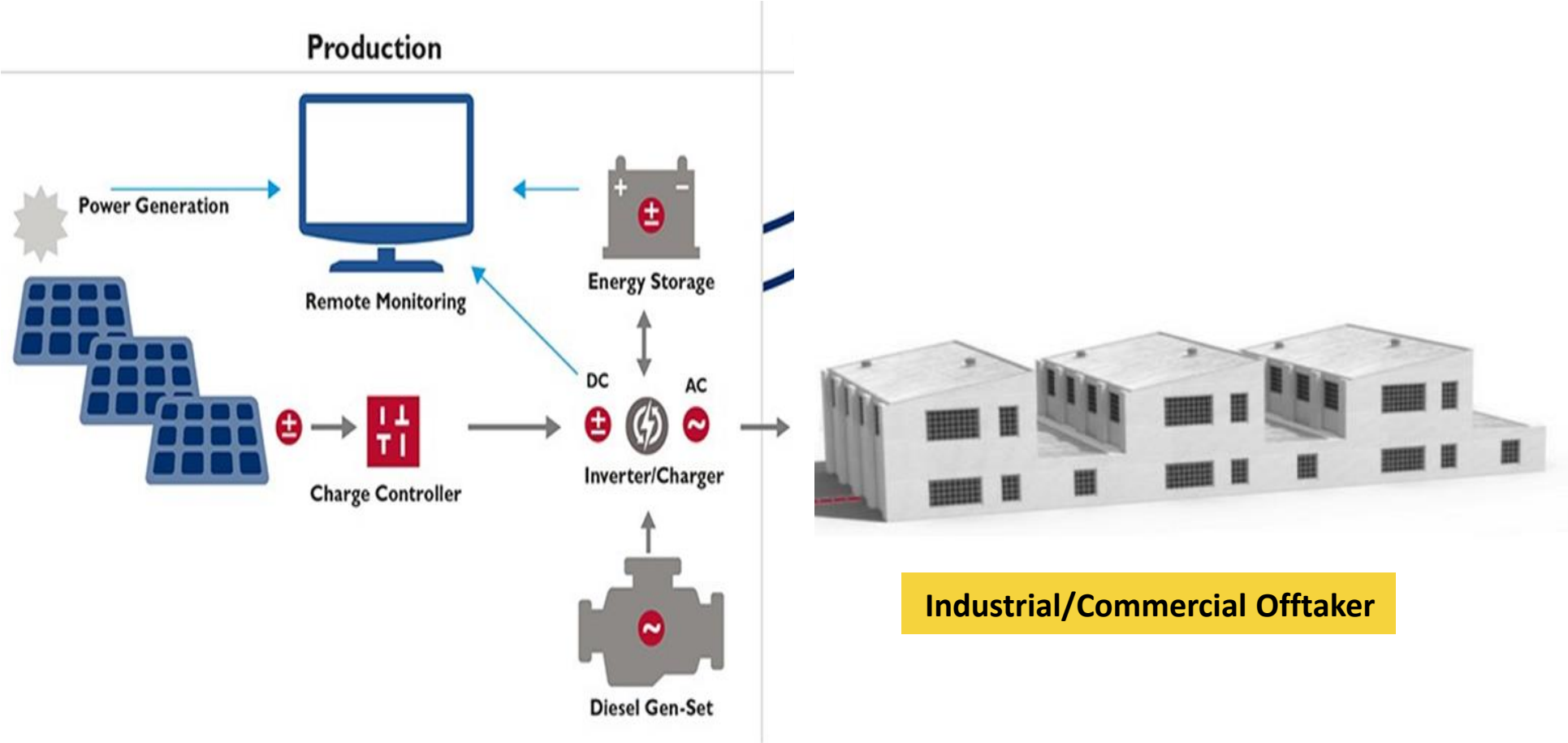
Key Advantages

- The Investment is secured with license/Permit from the regulators for the life time of the project
- Multiple off takers /customers assure capacity utilization and long term revenue security.
- Cheap power can be injected in to the energy mix at low and off sunshine periods

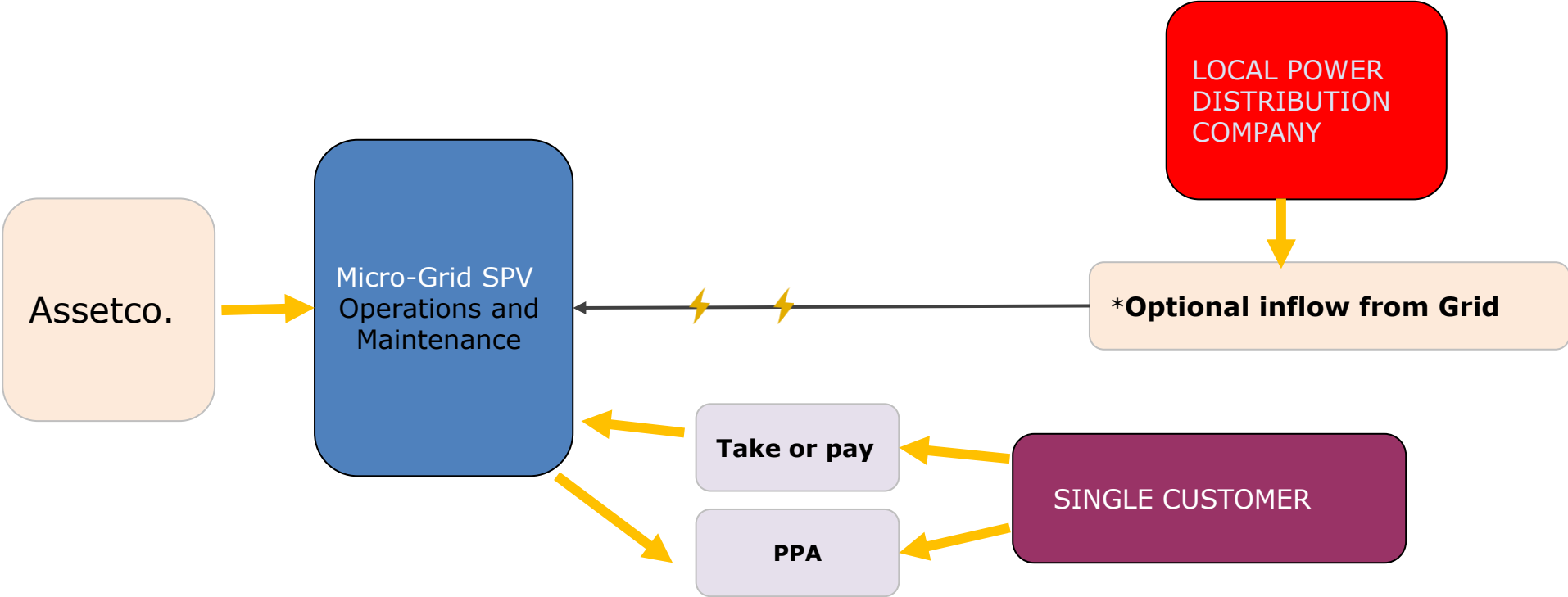
Key Disadvantages

- Long regulatory process
- Tariff is controlled by the regulator
- Complicated multi-party transaction
- Complex distribution network

Captive Power Micro Grid



SLD of Captive Power Micro Grid



Key Advantages

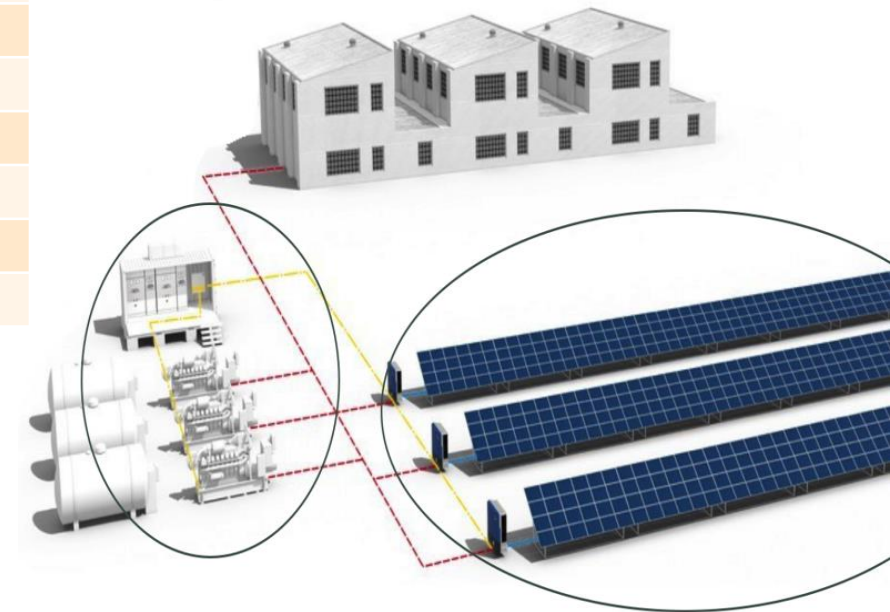
- Simple and quick process
- Two party transaction
- Simple power distribution
- Good revenue assurance if “Take or Pay” tariff model is adopted.

Key Disadvantages

- High risk of loss of revenue if off taker is affected by Natural disaster or goes bankrupt.

Summary of Diesel saving solution for an Industrial customer

Installed Power	980 kWp (first phase, no batteries)
Solar energy yield	2.120 kWh / kWp / year
Installed surface	10.000 m ²
Power generation / year	1,510,.000 kWh / 1,510MWh / 1.5 GWh
System life expectancy	35 years
CO ² savings over 20 years	47,820 tons
PPA price offer first year	175 USD / MWh
PPA term	20 years
Net Present Value over 20 years	2,296,.000 USD





NTT EXPERIENCES:

- Incorporated in Nigeria in 2004.
- Built over 23MW of renewable energy EPC projects across Africa
- Owns and operate 4 Rural micro Grid with serving over 2400 connections.
- Ongoing Construction of 15 new mini grids targeting over 18,000 connection by Q4/2020
- Owns and operate 1 C&I Micro grids (3 New projects in our 2020 pipeline)
- Owns and Operate 2 Interconnected micro grids (2 New projects in the pipeline in our 2020 pipeline)



THANK YOU!



Nayo Tropical Technology Ltd.

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