Solar Market Brief: Namibia

**Country facts framework**
- Upper-middle-income country
- 54% of population lives in rural areas, with a rapid urbanization process ongoing
- Namibia is growing at a dynamic pace with good investment fundamentals
- Currency Nam Dollar pegged 1:1 with South African Rand since 1993

**Key Electricity Market Facts**
- The energy sector in Namibia is highly dependent on power imports from neighbour countries (60%) which provides strong opportunities for solar power supply
- The planned increase of domestic capacity with gas-fired power (Kudu) is unlikely to be realised, providing good opportunities for competitive, quick-to-deploy solar power

**Population** 2.4 million
**GDP per capita** US$ 6014
**GDP growth (2004-2016)** 6%
**Inflation Rate (2007-2016)** 6.8%
**Sovereign Rating** BBB-
**FDI** US$ 77.6 Million
**Doing Business Index** 108 of 190
**Corruption Perception Index** 45 of 168

**Total Energy Mix 2013**
- Coal 2%
- Biomass 20%
- Diesel, Kerosene & Heavy Fuel Oil 42%
- Petrol 16%
- Electricity: Domestic generation 6%
- Electricity: Import-export 14%

**Generation** 1.33 TWh
**Consumption** 4.24 TWh
**Installed Capacity** 513.25 MW
**PV capacity** 0.45 MW

Source: Detlof von Oertzen, July 2015.
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Regulatory framework

- Fully integrated, state-owned utility NamPower dominates power generation, trading and sales
- IPPs need a generation licence from the regulator Electricity Control Board (ECB) and Nampower connection acceptance, as long as grid connected
- Solar tenders from Nampower and Regional Electricity Distributors (REDs)
- Individual PPAs with industry and mines in principle negotiable

Exemplary project financing conditions

Local currency financing in NAD via development banks in either Namibia or South Africa

- Exemplary lending conditions for solar IPPs: 70% of debt, 12-13% all-in rate in NAD or ZAR, 10 years term
- Further financing options via development bank concessional financing under negotiation
- Debt providers to be contacted for NA: Development Bank for Southern Africa (Johannesburg, ZA), Industrial Development Corporation (IDC) Johannesburg, ZA

- Planned but unrealised domestic gas-fired power plant Kudu leaves huge supply gap
- Several hundreds of MW power import contracts expiring with need to renegotiate
- Top notch solar resources in both DNI and GHI: >2000 kWh/sqm
- End consumer’s electricity tariff recently increased by 15 % yoy, with similar forecast for coming years

Suntrace’ view on the market

Namibia is a middle income country with sound investment fundamentals: politically stable, investment grade, decent growth rates and a small but growing electricity market. Namibia offers opportunities to develop PV solutions that can serve as a reference for other African markets. Regionally integrated in the Southern African Power Pool, out of which the country imports >60% of its electricity today. National Energy planning has been heavily relying on Kudu-gas-to-power, a 800 MW gas-fired power project, thought to come on grid in 2018 for domestic supply and export of power, far exceeding Namibia’s maximum power demand in 2016. However, for a number of reasons, Kudu Gas Power Project will not materialise within at least the next ten years. This leaves a gap of several hundreds of MW capacity, which need to be filled with short term solutions such as electricity imports from power short neighbouring countries or fuel oil aggregates. All of these come at high cost and would perpetuate Namibia’s drainage of capital to cover power bills.

Enter solar. Numerous solar activities are sprouting already: Nampower and Regional Electricity Distributors have tendered and allocated several small to mid-scale PPAs in 2015 and 2016. For off-grid industries and mines, PV fuel saving concepts turn out to be commercially viable even under current low diesel prices. On-grid industries suffer high annual price increases, with tariffs having time-of-delivery price differentiations, depending on the time of usage. This offers interesting opportunities for peak shaving or load shifting solutions at prices that will render battery storage commercially viable in the near future. Together with an overall sound investment environment, Namibia offers an excellent platform to develop innovative business solutions that can serve as a reference for other African markets.

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